

eBook

Credentialing and Digital Assessment

Beginning the Path to Efficiency



Introduction

Certifying and licensing bodies have faced a number of challenges in the pandemic era. Testing center closures have forced programs to devise alternatives to in-person testing, security concerns have cast doubt on the integrity of remote evaluations, and test cancellations have delayed candidates in obtaining professional licensure and credentials [1].

But these challenges have also come with opportunities to innovate outdated processes and find sustainable paths forward. This is especially true as speculation over the “return to normal” is shifting to acceptance and planning for a yet-uncertain future.

A digital solution for assessment can help certifying and licensing bodies solve pandemic-related challenges, continue to uphold the valuable credentials their exams provide, and evaluate the competency of candidates to enter their professions.

Beyond helping organizations find stable footing in a post-pandemic world, a digital assessment platform can reveal new areas of efficiency and flexibility. Such an exam solution also preserves assessment integrity and quality, promotes accessibility for candidates, and supports growth and scale.

Adopting a digital assessment platform can help certifying and licensing bodies increase efficiency for every step of the assessment — from test creation and delivery to data analysis — and save substantial time and money along the way.



What Efficiencies Can Organizations Gain from Computer-Based Testing?

By streamlining test management, enabling secure delivery (both on-site and remote), and generating intuitive performance reports, a digital assessment solution can increase returns on investment for credentialing organizations.

A team of researchers from University of Cambridge and Addenbrookes Hospital recently used market sizing strategies to estimate annual savings with virtual exam delivery at the Royal College of Surgeons of England (RCS of England), an international provider of postgraduate exams for surgical and dental professionals.

The researchers considered factors that remote, digital assessment can eliminate or reduce — including exam hall costs, invigilator wages, travel expenses, and printing costs — and found an estimated savings of between GBP £52,000 and £157,000 for RCS of England's Trauma and Orthopaedic (T&O) surgical assessment [2].

Market Sizing Report

RCS of England's T&O Surgical Exam



GBP £52,000
– £157,000

Estimated Savings



Digital assessment can also result in time saved for exam providers. In 2021, the University of Michigan opted to move its four language placement exams to a digital format. The move has expedited scoring and simplified exam administration, cutting hours spent on placement exam related tasks by about 50%, according to the school's examinations lead [3].

Time and cost savings like these can contribute to more efficient processes and enable organizations to reallocate resources for continual improvement in assessment and beyond. Below we'll explore some key efficiencies that certifying and licensing entities can gain with digital assessment software.

University of Michigan

Language Placement Exams



Reduced Task Hours by

50%

with Digital Assessment

1. Cut Printing Costs by Going Digital

Paper-based testing has been a common mode of exam delivery for organizations that award credentials, grant licensure, or provide prerequisite testing for admission or placement. But a growing number of organizations are administering tests digitally. Among organizations making the switch is the New Zealand Qualifications Authority, which offered 58 online exam sessions across 21 subjects for its National Certificate of Educational Achievement (NCEA) for the first time in 2020 [4].

There are many incentives for assessment organizations to go paperless, including the opportunity to save the time and costs associated with exam printing — plus the potential to reduce their environmental impact. In “Experiences from Large-Scale Computer-Based Testing in the USA,” Brent Bridgeman of Educational Testing Service (ETS) notes some inherent drawbacks of paper-based assessment:



Printing test booklets and mailing large quantities of them to test centers can be a major expense for testing programs. If an error is found after booklets are printed (often months in advance of the actual testing) booklets must be reprinted and reshipped at considerable expense [5].

With a digital assessment platform, organizations can manage exam creation and refinement within a central administrator portal, deliver secure exams directly to candidates' devices, and review the exam files that candidates upload to the portal upon completion. A centralized hub helps organizations avoid unnecessary expenses that can arise with paper-based assessment and redirect the time spent printing exam materials to other assessment activities.

ExamSoft Client Spotlight: Victorian Bar Association

From Paper-Based Exams to Digital Assessment

The Victorian Bar adopted ExamSoft to digitize its Entrance Exam in October 2020. Learn about some efficiencies the association has gained with the platform:

“ We delivered handwritten exams up until last year. They were time-consuming, and it became difficult to manage the marking safely with increasing exam demand.”

“ With ExamSoft, I was very impressed with the ease of use and the convenience, but also the security. It made the process of marking so much better.”

Nina Massara

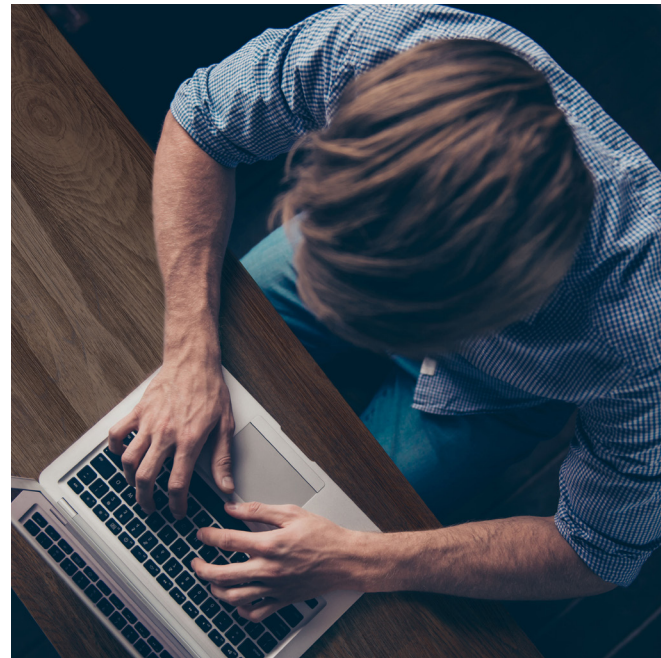
Education Manager, Victorian Bar Association

2. Boost Efficiency on Exam Day

Administering on-site exams involves several logistical considerations that aren't an issue when using a digital assessment solution. As mentioned above, printing and distributing paper-based test materials can be both expensive and time-consuming. Even computer-based testing can present certain challenges when delivered in person. Practical Considerations in Computer-Based Testing notes a few of these challenges:



An obvious, but nevertheless important, need for computer-based tests (CBT) is the test-administration sites. Given that CBTs need to be administered on computer, provision needs to be made for a sufficient number of computers to manage the test volume. A test program may elect to manage the administration of the exams in their own computer labs or to use a chain of commercial computer test centers [6].

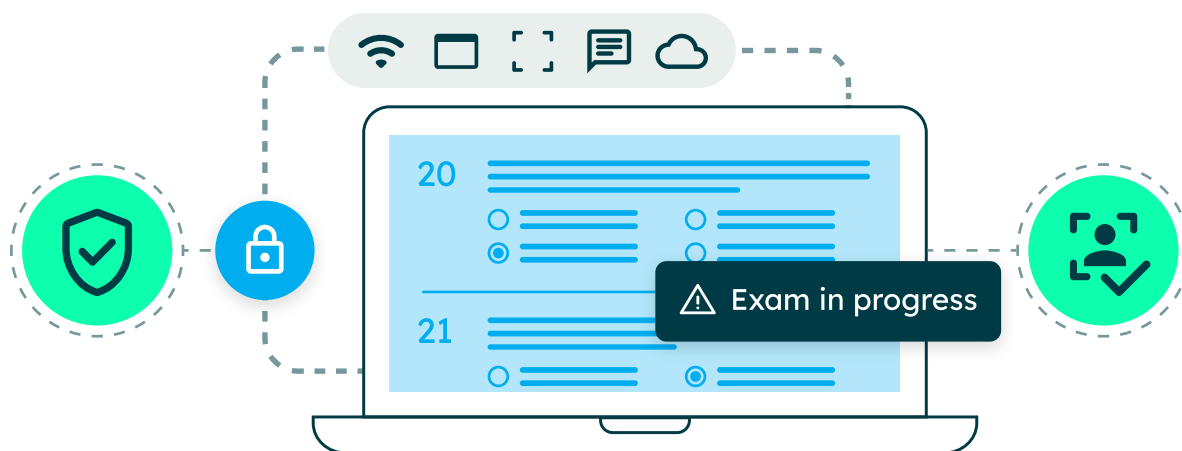


But with the right solution for digital assessment, an in-person venue is not a requirement for computer-based testing. Assessment solutions with options for secure, offline delivery can facilitate a remote testing experience that's similar to a live exam session. And by delivering exams electronically to candidates' devices, these solutions can save organizations the costs of booking a testing center equipped with the necessary infrastructure and save candidates the time and cost of traveling there.

3. Protect Valuable Exam Content

Exam integrity is a top concern for assessment providers, particularly for organizations that administer exams to award credentials or grant licensure. Safeguarding exam content from academic dishonesty is tantamount to preserving the value of these exams, which determine candidates' competency and serve as a gateway to professional opportunities.

For organizations seeking the flexibility of remote assessment without having to compromise exam integrity, a secure solution for digital assessment can help. From locked down browsers that restrict web navigation to tools that disable access to external applications, there are various options for exam security with distinct benefits for safeguarding exams.



Some solutions are designed to provide the same level of security as on-site exams that employ live proctors or invigilators. Depending on the solution, this technology provides various modes of supervision during testing — from live proctoring/invigilation to automated options, which use technology-enabled tools to detect behavior that may indicate academic dishonesty.

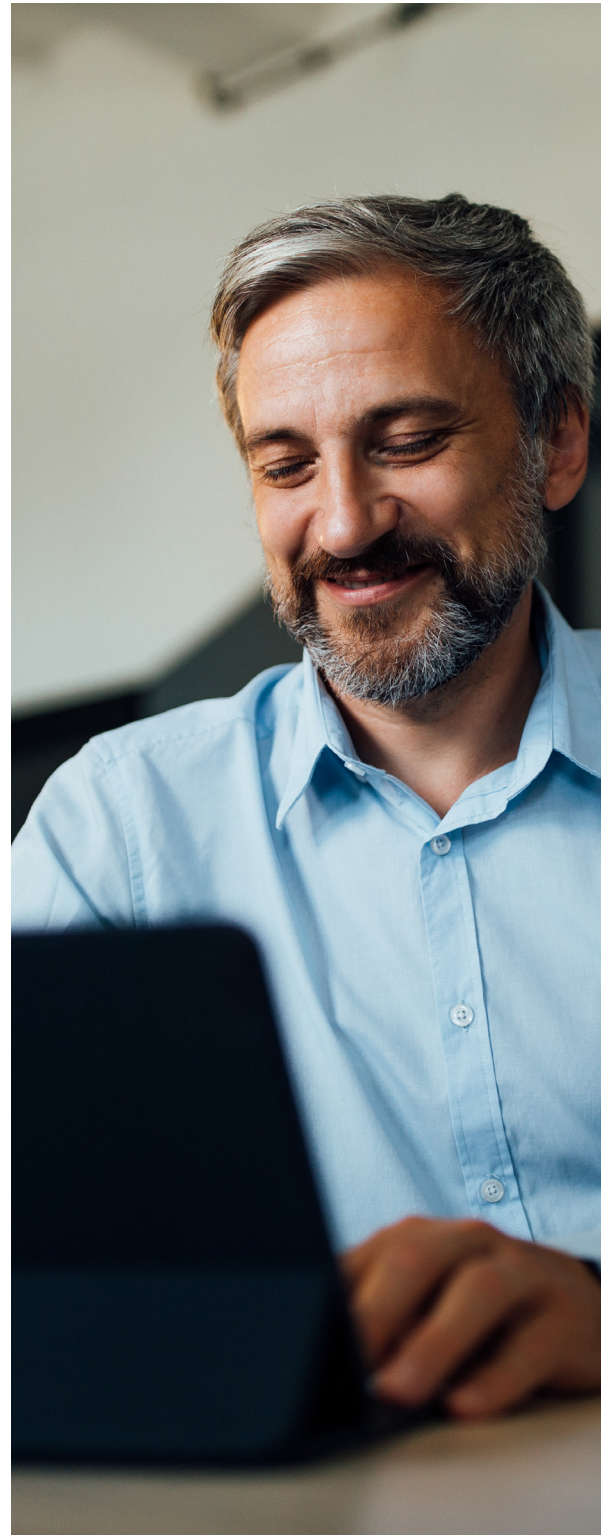
Pairing computer-based testing with remote proctoring/invigilation technology provides an added layer of security for high-stakes exams — no matter where candidates test — to give organizations the peace of mind to know that they are preserving the value of the credentials their exams provide.

4. Expedite Exam Review

Not only can digital assessment save time in exam creation, but it can also streamline scoring to reduce hours spent in exam review. Brent Bridgeman of ETS cites some additional benefits of digitizing assessment once an exam session is complete:

“After the test, there is no need to mail answer sheets back to a central location for scoring with a chance that they could be lost in the mail. Computer delivery also allows for the possibility of instant scoring. With the GRE CAT, for example, examinees can get a preliminary view of their scores immediately after answering the last question [5].

A digital assessment platform can protect completed exams by fully encrypting candidates' answer files before sending them to a secure server. To save time scoring, some exam solutions have automated features to instantly analyze the answers to single- or multiple-response item types. For exams with fill-in-the-blank items, some solutions allow administrators to review a full list of typed responses and auto-select acceptable answers across every exam.





Transitioning from paper-based to digital assessments can also help streamline review for exams with short-answer items and essay sections. By design, digital exam solutions prompt candidates to provide typed responses in uniform fonts, rather than handwritten answers that assessors may struggle to decipher. And for candidates with basic computer proficiency, typed exam formats can help them complete exams more quickly, leaving more time for self-review.

ExamSoft Client Spotlight: Veterinary Specialty Exams

Digitizing Exams for Board-Certification Providers

Veterinary Specialty Exams helps board-certification exam providers digitize paper-based exams with ExamSoft. In 2012, the consultancy worked with the American College of Veterinary Sports Medicine and Rehabilitation to streamline assessment.

“ The exam committee was blown away by how quickly they had results in hand. Grading that had previously taken weeks to complete was now done almost immediately.”

Dr. Robert Malinowski

Owner, Veterinary Specialty Exams

5. Streamline Psychometric Analysis

With a digital solution, testing organizations can quickly obtain the assessment data necessary for in-depth performance reports. In “New Constructs, Methods, & Directions for Computer-Based Assessment,” Educational Testing Service’s Patrick Kyllonen notes the following about digital assessment reporting: “For data analysts, the data entry step is eliminated, which speeds the analysis process” [7]. An assessment platform with built-in reporting can deliver performance insights much faster than it would take to review and analyze paper-based assessment results.

Psychometric reporting is a valuable tool for organizations to objectively determine the item and exam quality using data from digital assessments. The Institute of Credentialing Excellence recommends the following for assessment organizations:



When it comes to the exam, consider one vendor who develops the items with subject matter experts (SMEs), holds the item bank where all test items reside, builds the exam forms, delivers the forms, keeps the psychometric data to monitor the items and forms, and creates client specific reports [8].

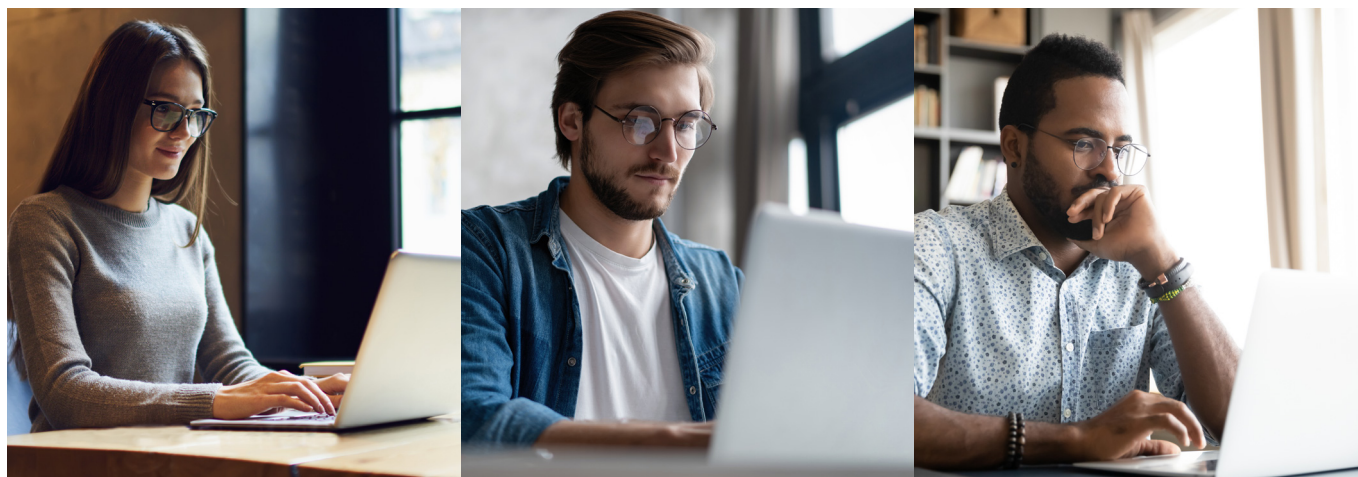
By keeping assessment data and exam content in one place, a digital assessment solution with built-in psychometric reporting can save organizations the costs of hiring a third-party psychometrician. Intuitive reporting tools can empower assessors to gain valuable insights about the quality of their items and exams. With a centralized hub for exam creation, review, and reporting, assessment designers can easily evaluate the item bank and make necessary adjustments to the questions stored there.

6. Accommodate More Candidates

A digital assessment solution that offers secure, remote testing can provide organizations with valuable opportunities to scale. It can be difficult to augment aspects of the assessment process for increased demand when organizations need to provide high-stakes exams to a growing pool of candidates. An increase in candidates may require institutions to book larger, more expensive testing centers. And when an exam session becomes large enough, live proctoring/invigilation can be difficult.

A report published in 2019 by the IT Certification Council detailed IT certification organizations' experiences with remote proctoring/invigilation. Among the benefits of these tools, these organizations noted, "Scalability is a major consideration, as organizations are discovering the benefits of the wider reach that remote proctoring provides" [9].

Computer-based testing software — combined with remote proctoring technology — allows organizations to deliver secure exams from any location, while serving more candidates than a single venue could accommodate. With a security tool that detects unusual behavior through live or automated flagging, potential instances of academic misconduct are documented for institution review. So instead of spending time reviewing every exam session, assessors can simply refer to a list of flagged recordings to determine if violations have occurred.



Begin the Path to Efficiency With ExamSoft for Credentialing

ExamSoft's secure digital solution for exam creation, administration, and analysis can help your organization streamline high-stakes testing while upholding the value of the credential your exam provides. Discover how ExamSoft can help your organization optimize the assessment process to reap the benefits of time and cost savings:



Digital Assessment

Cut printing costs by delivering digital exams directly to Windows, Mac, or iPad devices.



Exam-Day Flexibility

Reduce administrative costs and travel expenses with secure, remote exam delivery.



Secure Testing

Protect valuable exam content with offline testing and remote proctoring/invigilation.



Automated Flexibility

Save assessors' time in exam review with convenient options for automated scoring.



Intuitive Reporting

Move data analysis in-house with centralized features for psychometric reporting.



Scalable Platform

Accommodate more candidates as you grow with scalable, remote assessment.

References:

1. Jodoin, M. and Rubright, J. (2020, June 23). When Examinees Cannot Test: The Pandemic's Assault on Certification and Licensure. National Center for Biotechnology Information. <https://www.ncbi.nlm.nih.gov/pmc/articles/PMC7405287/>.
2. Khanduja, V., Kumar, S., Pettit, M., Shukla, S. Zhang, J. (2021, February 17). Virtual Exams: Has COVID-19 Provided the Impetus to Change Assessment Methods in Medicine? Bone & Joint Open. <https://online.boneandjoint.org.uk/doi/full/10.1302/2633-1462.22.BJO-2020-0142.R1/>.
3. Gribble, T. (2021, August 4). Simplified Placement Exams Save Time by Going Digital. University of Michigan. <https://record.umich.edu/articles/simplified-placement-exams-save-time-by-going-digital/>.
4. Digital Assessment: NCEA Online. (n.d.). New Zealand Ministry of Education. Retrieved January 19, 2022, from <https://ncea.tki.org.nz/What-s-new/Digital-Assessment-NCEA-Online>.
5. Bridgeman, B. (2009). Experiences from Large-Scale Computer-Based Testing in the USA. Scheuermann, F. and Bjornsson, J. The Transition to Computer-Based Assessment. JRC Scientific and Technical Reports. <https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.147.7171&rep=rep1&type=pdf#page=39/>.
6. Davey, T., Parshall, C., Kalohn, J., Spray, J. (2002). Considerations in Computer-Based Testing. Practical Considerations in Computer-Based Testing. Springer. <https://books.google.com/books?id=QH0VuDUF7mYC&lpg=PR7&dq=The%20transition%20to%20computer-based%20testing/>.
7. Kyllonen, P. (2009). New Constructs, Methods, & Directions for Computer-Based Assessment. Scheuermann, F. and Bjornsson, J. The Transition to Computer-Based Assessment. JRC Scientific and Technical Reports. <https://citeseerx.ist.psu.edu/viewdoc/download?doi=10.1.1.147.7171&rep=rep1&type=pdf#page=151/>.
8. Kahn, E. (2021, October 15). Credentialing: It's More Than Just the Test. Institute for Credentialing Excellence. <https://www.credentialinginsights.org/Article/credentialing-its-more-than-just-the-test-1/>.
9. Remote Proctoring Trends: An IT Certification White Paper. (2019). IT Certification Council. <https://itcertcouncil.org/remote-proctoring-benefits-risks-and-lessons-learned/>.

About Turnitin

Turnitin is a global company dedicated to ensuring the integrity of education and meaningfully improving learning outcomes. For more than 20 years, Turnitin has partnered with educational institutions to promote honesty, consistency, and fairness across all subject areas and assessment types. Our products are used by educational institutions and certification and licensing programs to uphold integrity and increase learning performance, and by students and professionals to do their best, original work.

About ExamSoft

ExamSoft is the digital assessment platform that helps organizations understand and evaluate their exams and candidates. With an intuitive online portal, ExamSoft makes it simple to create, administer, and grade exams — all to provide certification and licensing bodies with a secure and efficient test administration solution.

