



**e-Assessment
Awards 2020**

Introducing the Finalists and Winners

of the 2020 e-Assessment Awards

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eAA
the e-Assessment
Association



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A message from our headline sponsor

"The e-Assessment Association, with the support of its members, works tirelessly facilitating discussion, defining best practice and communicating the positive contribution that technology makes to assessment. This message is now more critical than it ever has been, with the COVID-19 pandemic creating the most dramatic shift in test delivery that we have ever witnessed.

Awarding Organisations have been bold and undertaken change programmes that would typically require months of development. The testing community has generally been brave and innovative in adopting technology to evolve with the challenges it faces.

The first time we sponsored the event we said that, only if e-Assessment providers were willing to collaborate as an industry and share ideas and best practice, would we achieve technology's full potential to enhance the assessment process. We believe that we, as an industry, are now realising this mission.

The adoption of these technologies is a change that we are confident is here to stay and that is why the awards are so important and why we at PSI are continuing to support them as headline sponsor into their fourth year."

Kerry Williams, Vice President Certification, PSI Services.



Lifetime Contribution

Professor Diana Laurillard

Professor Diana Laurillard is currently Chair of Learning with Digital Technologies at UCL Knowledge Lab (2005–present). Previous appointments include Head of the e-Learning Strategy Unit in the UK government’s Department for Education and Skills (2002–05), and Pro-Vice-Chancellor (Learning Technologies and Teaching) at the Open University (1998–2002). She is a globally renowned speaker on digital education and digital methods of assessment for learning. Her most recent book is *Teaching as a Design Science* (2012). Her previous book, *Rethinking University Teaching* (2002), is one of the most widely cited in the field. The conversational framework developed in this book has been impactful for evaluating e-assessment and assessment at scale via peer review, and continues to inform learning design in the higher education and educational technology sectors. She is currently leading research projects on (1) developing the Learning Designer suite of tools (2) online communities for teachers and trainers by making use of MOOCs for professional development courses; (3) adaptive games apps for learners with low numeracy and dyscalculia. Her work has been of particular relevance to scholarly communities engaged in designing learning and teaching at scale.

Laurillard’s work on pedagogy, namely the conversational framework, helped inform the design of community-supported learning on FutureLearn, a website launched in 2013 by the Open University as the UK’s first MOOC platform. This model addresses the challenge of delivering learning and assessment at scale by harnessing the power of the community of learners, encouraging different kinds of interactions between educators and learners throughout each course and allowing learners to share knowledge, experience and skills. Today, FutureLearn hosts nearly 14 million learners and is the leading social learning platform for MOOCs and online degrees. Laurillard is currently FutureLearn’s Academic Advisor, overseeing data-driven research by Ph.D. students and helping to inform new product developments and pedagogical tools. She is also lead educator on the University of Leeds’ Blended Learning Essentials suite of courses on FutureLearn, which has totalled more than 60,000 learners historically. Her career honours include Life Membership of the Association for Learning Technology, Fellow of the Royal Society of Arts, honorary doctorates from Edinburgh Napier University, the University of Brighton, the Open University of the Netherlands, and the University of Abertay, and she is an honorary fellow of University College London. She has an honorary Life Membership of the Association for Learning Technology, was a member of the Governing Board, UNESCO Institute of IT in Education from 2003–13, and of the IT Visiting Committee at Harvard 1999–2002.

Best Use of Formative Assessment

WINNER

AlphaPlus Consultancy Ltd



National Online Personalised Assessments in reading and numeracy on behalf of the Welsh Government.

In Wales, all children aged 7-14 take national assessments in procedural numeracy (number, measuring, data skills), reading and numerical reasoning (solving problems). These assessments are designed to identify areas where children and teachers need to focus their efforts in order to make progress. Previously, these assessments were taken on paper during the summer term. However, the Welsh Government decided to move the assessments on-screen and on-demand, starting from 2018.

AlphaPlus is leading the multi-partner project team, developing assessment infrastructure and content for the new 'personalised assessments', while also delivering the legacy on-paper assessments.

To date, over 370,000 on-screen assessments have been delivered in every maintained primary and secondary school in Wales. The assessments are highly innovative:

- adaptive; they respond to the capabilities of learners
- accessible; every child takes the same test - all on-screen, no paper test alternatives
- calibrated; teachers get nationally-comparable, trustworthy results
- easy to administer

Feedback is timely and focussed, without any marking or analysis by teachers. The project represents a very substantial achievement – on-screen rollout of a statutory national assessment programme which meets the needs of teacher and students, and delivers real benefits to teaching and learning.

FINALIST

NetSupport

ReallySchool

ReallySchool is a time-saving app for early years practitioners, primary school teachers and teaching assistants to help them meet the requirement to capture, assess and record their pupils' learning experiences. It streamlines the process, allowing them to take photos, videos and audio recordings of skills acquisition via a tablet, carry out observations and allocate assessments against in-built curriculum

objectives as they go. ReallySchool creates an online log that shows a timeline of each pupil's progress and allows staff to see quickly and easily the areas that need to be worked on during the lesson.

With a corresponding online desktop area providing a variety of reports and journals, ReallySchool allows teachers and senior leaders to quickly gain valuable insights into their students' learning and progress. Schools can even use ReallySchool to encourage parental engagement if they wish, by sharing pupils' achievements with them and having a dialogue about it.

ReallySchool is developed by NetSupport and is available for iOS and Android. It is priced at a budget-friendly point for schools.

FINALIST

Skills Forward

The pioneering One Assessment was developed based on extensive research and feedback from Skills Forward customers, who called for a slicker, faster assessment process.

Previous assessments, respected for their accuracy, took an average of 28 minutes to complete for maths and 26 minutes for English. This meant that a 2-hour session had to be planned in and although this was standard across similar products, time costs were substantial, requiring extra staff hours as well as frustration for learners. Enter One Assessment - a product which revolutionised this process. One Assessment is the only product on the market which will assess both a learner's English and maths level accurately in 23 minutes, slotting comfortably into a 1-hour session.

It will also assess the best route for the learner's next steps, Functional Skills or GCSE, and provide a level for both. The time-saving costs for our customers are massive 36 minutes when compared to existing GCSE assessments, and 90 minutes for those learners who sit both Functional Skills and GCSEs. We have also added an employability assessment – Skills Work is the only product of its type to be endorsed by the Institute of Employability Professionals.

Best Use of Summative Assessment

WINNER

Newcastle University



Newcastle University Digital Exam Service

The Newcastle University Digital Exam Service has grown in scale to be one of the leading providers of online summative assessment in the UK HE sector. The service is a shining example of successful collaboration between many key stakeholders across the organisation. Aligning closely with institutional strategy, the service provides a secure, efficient and reliable method of delivering high-stakes summative exams to a large number of students every year.

The service helps the University with its commitment to lowering its environmental impact by greatly reducing the amount of paper used during the exam period. Exam administration and moderation processes are streamlined. This has also led to efficiencies and time-savings for academics by providing automated marking and feedback.

Student feedback regarding their experience of the online exams is extremely positive, and this is being improved further with the university's project to expand and diversify the online exam provision. The service provision is regularly evaluated and improved upon. This process has helped to increase the popularity of the service across the service as staff view the service extremely positively.

FINALIST

Oxford University Press

As a relative newcomer to English language assessment, OUP have hit the ground running with an innovative use of e-assessment to provide excellence in English language testing. The Oxford Test of English is an online, adaptive, modular summative assessment that has been designed based on identified user needs. OUP knew early on that we wanted to design a different kind of English language assessment that would provide precise measurement of skills which would give students personalised assessment pathways and true flexibility that would enable them to progress in life through the Oxford University certification it offers.

Innovative e-assessment tools have enabled OUP to create a really exciting proposition that they're really proud of. Launched in 2017, the test is now used in 22 countries and has achieved global institutional recognition.

FINALIST

The Compliance & Skills Academy (COSAC)

Safe2Site

Designed and built by COSAC and in partnership with TestReach, Safe2Site™ is an online training product that provides individuals and/or their employing organisations a more flexible and cost-effective approach to obtaining the CSCS accredited Green (Labourers) Card. Booked, paid for, delivered and assessed entirely online, Safe2Site is currently the only Level 1 Health & Safety in a Construction Environment course of its kind approved by CSCS. The course can be accessed on any device, anytime/anywhere via the COSAC website.

The final examination is provided online using the TestReach assessment solution, delivered via live remote invigilation. This saves both individual and organisational time and allows learners to work at a pace and in a style that best suits them. This approach has also greatly increased accessibility to this qualification e.g. for dyslexic students who were not able to succeed in the classroom-based course and assessment, or for workers who found it hard to get time off-site to sit exams.

Launched in 2018 and with close to 4,000 courses delivered to date, the aim is to positively disrupt the UK market for this provision, with a demand in excess of 140,000 new CSCS Green cards required each year.

FINALIST

University of Reading

Student Progress Dashboard

Following a complex, year-long project, the University of Reading released a sector-leading Student Progress Dashboard in November 2019. The Dashboard presents students and staff with a series of screens which display core information about student progress. The Dashboard shows how much summative assessment students have completed, what their progress looks like in a series of graphics and how this attainment compares to the goals that students can (optionally) set for themselves.

It was collaboratively designed by staff and students with a particular focus on optimising the use of new, detailed assessment data recently made available at the University. The team were keen to improve student self-reflection, help student planning and encourage better assessment behaviours to support retention and attainment. The team also wanted to provide staff with more assessment information, more quickly, to support conversations they were having with students around academic and pastoral support. Although only live for 12 weeks, the Dashboard has recorded over 14,100 student record views. Initial survey results (54 students) show 96% of students liked it, 96% felt that they could better understand their progress and 88% are more satisfied with their assessment experience.

Innovation

WINNER

ACTNext by ACT Inc.



Innovative tool for the Measurement of a 21st Century Competence-Collaborative Learning and Problem Solving (CPS)

Collaborative problem solving (CPS) is a prominently important 21st century skill. It is widely considered to be a core competency in the workforce and is a key component of several standards for education. As pointed out by researchers specialising in educational assessment and 21st century skills, the field currently suffers from a scarcity of viable and robust tools for assessing these competencies, especially in K-12 learning contexts. In fact, the challenge of building valid assessments for CPS, cognitive and social-emotional learning (SEL) skills is two-fold. First, there is a lack of consensus on what the CPS competency model looks like and exactly which behaviors constitute evidence for CPS skills. Second, these skills, which are the primary evidence about collaboration, can be difficult to identify in any context, much less in ecologically valid collaborative experiences.

To overcome these challenges, ACT developed an innovative assessment tool “CPSX - Crisis in Space”, for measuring students’ collaborative, cognitive, and SEL skills. ACT implemented a new area, Computational Psychometrics, and utilise Artificial Intelligence and Machine Learning algorithms of data from rich, immersive interactions in a multitude of sensory modalities (multimodal data), which can provide a new generation of assessments of 21st century competencies such as CPS competence.

FINALIST

Centre for Assessment Research, Policy and Practice in Education (CARPE)

Dr Anastasios Karakolidis

Many assessments in use today are entirely text-based. However, research suggests that the overuse of text can be a source of construct-irrelevant variance, in that test-takers’ performance might be affected by factors that are beyond the focus of the assessment itself. This is a pressing issue for educational institutions and testing organisations and raises serious concerns about the validity, equity and fairness of the inferences drawn from test-takers’ performance on these assessments.

The applicant for this award developed an innovative solution to this problem using animation technology.

Specifically, an animated version of a situational judgement test (SJT) measuring interpersonal problem-solving skills in an educational context was developed. In this case, a text-based test using vignette descriptions was replaced by one that used animated videos. An experimental comparison of the two versions of the test indicated that animations reduced construct-irrelevant variance attributed to language and reading skills. In addition, the animated test was perceived by test-takers to be more valid, fair and enjoyable.

The implications of this innovation apply to a broad range of assessment contexts in education and the workplace and particularly for assessment candidates with a limited language processing proficiency.

FINALIST

Sparx

The scale of low numeracy skills – defined as those below Level 2 on the UK adult qualifications scale – is at epidemic proportions in the UK, with roughly four in five adults possessing low levels of numeracy.

Sparx combines adaptive technology with pedagogy and high levels of support to help improve the numeracy, and therefore life opportunities, of millions of learners around the world. Based on their rigorous research, close collaboration with schools and ongoing feedback, they've developed Sparx Maths – an in class and homework solution that improves students' progress in maths through personalised learning and reduces teacher workload.

Teachers receive fully resourced lessons, the ability to pause and progress students' tasks during the lesson, and real-time insights into class and student progress. Detailed lesson outlines are supported by rigorously tested content covering KS3 and GCSE curricula.

Homework is automatically set and marked every week. Research shows that using Sparx for four hours per week, on average, helps increase a student's predicted GCSE maths result by one GCSE grade. Disadvantaged students make equal progress to non-disadvantaged students – halting the attainment gap. And, teachers save on average five hours per week (based on 10 classes per week).

FINALIST

Tata Consultancy Services

TCS iON PAPER™

With a mission to cater to the education and examination industry, TCS iON, a strategic unit of Tata Consultancy Services, has been delivering integrated cloud-based solutions to bring in efficiency in processes, and drive speed, scale, security and a rich experience to TCS iON's stakeholders. TCS iON PAPER is a unique handheld education appliance, designed to cater to the needs of 21st century learners. The appliance addresses the learning, assessment and marking needs of exam boards and institutes.

TCS iON PAPER is a hand-held appliance that comes with customised hardware and software to address the challenges of question paper printing, storage, distribution and leakage. More specifically, a unique feature of this appliance is its single-touch question paper upload and distribution capability that works without internet/network. TCS iON has a wide range of cloud-based solutions with footprints that cover the entire value chain of education Eco-system encompassing K-12 schools, professional institutes, affiliated colleges, and universities. Hence, TCS iON PAPER is already creating waves in the education domain, and this is just the beginning.

Best Transformational Project

WINNER

University of Reading



EMA Programme

The EMA Programme at Reading has undertaken an extensive range of transformational work to realise a University ambition to move towards large scale adoption of online assessment. Since 2016, the Programme team have designed a non-directive, staged transition, sensitive to disciplinary differences, supported by 500+ engagement and communication sessions encouraging meaningful stakeholder involvement. The University of Reading completed a complicated piece of work to enable tens of thousands of individual marks to be recorded on new marks screens in their student records system, significantly expanding the use of data to support students and plan assessment. Drawing on this, they undertook a complex project to develop and launch a sector leading Student Progress Dashboard in November 2019. It presents a series of screens displaying core progress data in a range of graphics, to encourage student self-reflection, planning and enhanced staff-student support conversations.

The University of Reading have undertaken innovative and award-winning work to integrate their Virtual Learning Environment (Blackboard) and student records system (SITS), reducing workload. They have developed a wide range of written and video materials ordered around an online map, advised senior leadership in other institutions, run a national EMA conference and published widely to help support transition across the sector.

FINALIST

AlphaPlus Consultancy Ltd

National Online Personalised Assessments in reading and numeracy on behalf of the Welsh Government

In Wales, all children aged 7 to 14 take national assessments in procedural numeracy (number, measuring and data skills), reading and numerical reasoning (solving problems). These assessments are designed to identify areas where children and teachers need to focus their efforts in order to make progress.

In the past, these assessments were taken entirely on paper. However, the Welsh Government has decided to move the assessments to an onscreen format, starting in 2018. AlphaPlus is leading the multi-partner project team on behalf of Welsh Government, developing assessment infrastructure and content for the new assessments as they are phased in, while also delivering the legacy on-paper assessments.

The paper assessments are being replaced with adaptive online personalised assessments specifically designed for use in Wales, and delivered in Welsh and English. In numeracy, learners can access each question in Welsh or English, and all reporting output is provided bilingually so for example, English speaking parents of Welsh medium educated learners can access the reports. The new adaptive assessments automatically adjust the level of questions to match the learner taking the assessment, providing a personalised assessment experience and tailoring the level of challenge.

FINALIST

University of Jeddah

Introducing E-Assessment at the University of Jeddah: A Transformational Change

This summary outlines how e-assessment is introduced and implemented at the University of Jeddah and how it has led to great results for the learners, the teachers and the university.

Prior to 2019, all the University of Jeddah's assessments were paper-based and too many students would score full marks in their preparatory year by dishonest means. They have addressed this problem by making the assessment electronic and generated a larger number of versions, which saved them a considerable amount of time, energy, resources and money.

This change of assessment practice has strengthened the authenticity and validity of their exams and help to improve the standardisation level of exams. It has also imposed fairness and given students equal opportunities and has led to number of positive outcomes.

Their new next step is to expand the implementation of formative assessment to enhance both the quality of instruction and the learning gain of the students.

Overall, the introduction of the e-assessment at the University has proven to solve countless problems, among which is the fact that it allowed fairness and equal opportunities for every candidate regardless of their gender or social background.

Best Research

WINNER

University of Reading



Professor Emma Mayhew, EMA Programme

Adoption of online submission and feedback is increasing significantly across the higher education sector. The majority of institutions in the UK have now identified themselves as moving away from pocketed, disparate use towards embedding institution-wide online assessment practices. Providers are driven by a range of benefits for staff, students and the broader institution. Research has started to explore the impact of change but there has been very little sector-wide analysis exploring the challenges faced by institutions moving to adopt online submission and feedback.

This research explores a range of barriers identified by providers which have the potential to prevent, delay or reduce the benefits from undertaking change. It outlines the results of an extensive literature review which identifies challenges surrounding change design, stakeholder management, policy, process and technical integration but also finds that a number of institutions have been able to address some of these concerns, leaving them in sector-leading positions.

This research is designed to enable institutions who might be intending to implement institution-wide change in the future or who are currently undertaking change to be aware of these barriers, and of the experience of others in order to inform their own good practice, policy and pedagogy.

FINALIST

ACTNext by ACT Inc.

Circuit Runner Collaborative Problem Solving Gamified Assessment

Assessing collaborative problem solving (CPS) is a high priority in education and workforce but designing reliable and valid assessments presents unique challenges. We developed and tested a computerised game-based CPS assessment, Circuit Runner, in which participants interact with a virtual agent to solve a series of challenges in a first-person maze. Circuit Runner provides controlled interdependence between a learner and agent that facilitates assessment of the broad range of cognitive and social skills required for effective CPS. Tasks are designed to incorporate telemetry-based (e.g. log file, clickstream, interaction-based) and item response data to provide a more comprehensive measure of CPS skills. ACT's study included 397 participants on Amazon Mechanical Turk, who completed Circuit Runner, pre- and post-

game surveys, and a CPS situational judgment test. These elements allowed for exploration of CPS skills with different modalities and types of instruments. The findings support and extend efforts to provide a stronger theoretical and empirical foundation for insights regarding CPS as a skillset, as well as the design of scalable game-based CPS assessments. This research will be published as Stoeffler, Rosen, Bolsinova, & von Davier. Gamified performance assessment of collaborative problem solving skills. Computers in Human Behavior, 106036.

FINALIST

Heriot-Watt University

Migration and Transformation: an Analysis of Practitioners' Experiences with Online Exams

This research presents evidence of the ways in which the human practices of online exams are deeply entangled with technologies, and has implications for e-assessment practice across the UK and internationally. Through semi-structured interviews with eight practitioners in the UK, Norway, the Netherlands and Ireland, it analyses the impact, dimensions and limitations of two main discourses: migration, whereby exam technologies are assumed to be neutral instruments used to achieve preordained aims; and transformation, whereby the essential and inalienable qualities of technologies can be released to 'transform' or 'enhance' assessment. Its findings caution against the reinscribing of problematic assumptions about technology, providing evidence that: (1) exam technologies are neither inherently neutral nor essentially transformational; (2) e-assessment projects underpinned by the migration discourse can be much more complex and resource-intensive than anticipated; and (3) 'transformative' change may be value-laden and driven by assumptions. Given the complex and entangled nature of online exams, e-assessment practitioners are encouraged to think creatively about how implementation strategies align with educational goals; to consider the limitations of current discourses; and to analyse critically the relational and performative roles of exam technologies.

Excellence in Export

WINNER

PECS Data Services



Since 2010 The Western Cape Education Department has been the only province in South Africa to carry out systemic testing for all grade 3, 6 and 9 learners. In that time PECS Data Services, a BPO company from the UK that specialises in exam processing have been the only ever present delivery partner, providing software to manage the tracking of the tests and the marking, together with the scanning, data capture and processing of all the scripts. Most recently (2019), PECS again successfully delivered the project with their current partners, DarkData and The University of Cape Town in record time. Almost 600,000 scripts were scanned, marked and processed in less than 6 weeks, with PECS utilising their UK, Mauritian and South African presence, making the delivery of this high stakes project truly international.

FINALIST

Highfield Qualifications and Stadium

2022 will be an unprecedented year in Qatar's history as it hosts the FIFA World Cup, the most-watched sporting event on the planet. Hosting football's most famous tournament will cost Qatar £138 billion, as 1.3 million fans look set to flock to the country.

A key factor in determining the event's success will be spectator safety, making this a matter of national importance for Qatar. Stadium (international security experts) and Highfield (an award-winning awarding organisation) have been chosen to train and qualify thousands of stewards to help ensure spectator safety.

The first phase of this programme involved training/qualifying more than 1,300 police officers to work as stewards at the FIFA World Club Cup in December 2019. As all officers needed to be qualified within a 2-month window, only on-screen assessment could offer the speed and on-demand needs required for this project. In just 2 months, Highfield utilised its on-screen assessment platform (including developing a new interface to accommodate right to left reading of Arabic text) to accommodate learners in Qatar, overcoming the technical, cultural and language barriers that existed and supporting the huge success of the World Club Cup, in preparation for the 2022 World Cup.

A message from our chairman

"Every year, the Awards shine the spotlight on those who are making a positive contribution to e-assessment and help share best practice, innovation and research in technology-enabled assessment.

Now, more than ever, it would seem vital to share our sector's knowledge and experience collectively as one strong voice and source of information, to build approaches that not only help address the short-medium term challenges of the current crisis, but that also provide insight and exemplars of a possible way forward, which more fully embraces technology to deliver learning and assessment approaches fit for the 21st century.

The annual e-Assessment Awards programme is the perfect opportunity to showcase the very best examples and the phenomenal quality and diversity of work now taking place in this field; and huge thanks go to our panel of independent judges and to our sponsors, without whom we would not be able to share this with you all."

Matt Wingfield, Chairman, The e-Assessment Association.



Thank you to all our sponsors

