

ETC.

Assessment Innovation Fund

# Social Impact Report

2021-23

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# Innovation in assessment

## Purpose statement

Following the completion of five Assessment Innovation Fund (AIF) windows that committed the original £1m investment to 12 projects, we find ourselves at a point of reflection: What impact have our pilots to date had? What social value have they created? And what does this mean for the future of assessment?

The following report aims to answer these questions, highlighting the AIF's impact and opening up dialogue of what fair, open and authentic assessment might look like across the education sector.

## The current assessment innovation landscape

There's an increasing awareness and agreement among many stakeholders that the current assessment systems and methodologies are not adequately addressing the needs or recognising the skills of learners.

Assessment methods currently remain focussed on recall and repetition with structures that may advantage a minority of learners to the detriment of others, particularly those

with additional learning needs, those from socially deprived backgrounds, and those from ethnic minorities. Hence, there's a need for diversification of assessment methods that offer greater validity, authenticity, and inclusivity for all learners.

Assessment and feedback methodologies have moved on from simple measures of recall to become an active learning process governed by a learner's individual judgement, growth, and agency. These new methods are more focused on processes that are interrelated with learning just as much as, or even rather than, generating grades. The goal can often be the development of skills, thus turning evaluation from the final step in the classroom into part of the learning process.

This change in mindset has been somewhat expedited by the Covid-19 pandemic, which demanded a swift pivot for practitioners and teachers to new, generally technologically supported, teaching, learning and assessment methods. Beyond the pandemic, digital change on the whole has had a profound impact on assessment methodologies, creating new opportunities and broadening horizons in relation to its forms and purpose.

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However, despite this desire for change and the landscape created by Covid-19, the introduction of new summative assessment and feedback methods remains slow. The reasons for this are numerous; to change assessment across the board we must be certain that the adaptations represent tangible benefits for all learners; concerns about rigour and potential "dumbing down" of qualifications; financial and practical implications for practitioners; and finally, the concern that innovation allows learners greater opportunity for academic dishonesty.

This has led to the creation of an assessment landscape that's siloed and disconnected with a proliferation of innovation on smaller levels that has put students and academics into what Harland et al (2015) called an "assessment arms race", leading to a lack of rigour in assessing the validity of these new methods.

Moreover, there remains little consensus as to what form assessment innovation takes, a fact hampered by a lack of research, collaboration, and investment across the educational field. Whilst technology will undoubtedly be pivotal to many developments in assessment and feedback methodologies, it cannot be seen as a "one stop shop". Indeed,

as seen during the pandemic, technology can, on the one hand, simply reinforce previously identified inequalities or create new ones, benefitting certain learners to the detriment of others.

A 2022 QAA report into the impact of online learning demonstrated that learners from poorer socioeconomic backgrounds were negatively impacted by the pivot to online learning and assessment, receiving poorer grades than anticipated, whilst mature learners benefited from alternative method of teaching and learning (QAA, 2022). Technology in and of itself is not a universal good and if it's not used with adequate reflection and evaluation will simply serve to maintain the current, inequitable, status quo.

### **The future form and content of assessment**

There's a clear need for rigorous, funded investigations into a range of innovative assessment methods to bring clarity to the sector in terms of efficacy, equality, and ease of implementation. When designing assessments, as highlighted by the OECD, several key concerns must be considered.

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### Assessment validity

Primarily, assessments should strive to measure what's important, not simply what is easy to measure. Whilst recall and memory are easily measured via traditional assessment methods, there is increasing demand within the education sector for learners to develop skills beyond this, including problem solving, critical thinking, situational application of concepts and communication. When considering the less tangible "soft skills", sometimes termed "meta" or "essential" skills employers, and the wider world, require of learners, it's not immediately apparent how these may be assessed with objectivity and rigour; nonetheless, this is an inherent challenge of assessment innovation.

Furthermore, assessments should allow learners to demonstrate their knowledge and abilities within a context relevant to their subject area, and assessments should evaluate how students learn new concepts, not simply what they learn. The creation of "authentic" assessments, particularly within the vocational sector, should allow learners to transition more easily, and with greater confidence, to their chosen profession. It will also increase employer confidence within qualifications if they are deemed directly relevant to their specific field. Moreover, if greater insight into how individuals learn is surfaced, there's potential for more individualised teaching methods moving forwards.

### Assessment and technology

As mentioned, the impact and potential of technology when considering the redesigning of assessment cannot be understated. Digital technologies have the potential to enable a whole range of new assessment methodologies, including adaptive testing features, innovative assessment formats, and new ways of presenting evidence of a learner's knowledge and understanding. However, the "ease" of implementing these technologies belies the fact that, without corresponding changes to assessment measures and broader comprehension of what is meant and required of assessments, these technologies will not bring innovation; they will simply replicate existing structures.

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### Research, networks and investment

Building upon this, it's becoming apparent that no new assessment methodology can be broadly implemented across the education system without rigorous validation of efficacy through detailed data collection, research and evaluation. The outcomes of assessments for learners are far reaching and educators have a duty to ensure they are designed appropriately to best measure a learner's skills and knowledge, and are not simply an educational fad.

Finally, for innovation in assessment to be a success there must be investment and buy-in from a range of stakeholders; it must be a concentrated effort from across the educational landscape to design, assess, and implement new assessment and feedback methodologies to truly benefit learners. At present, innovation is fragmented, lacking peer review, and without adequate funding to truly test new methods on a wider scale. For this to change, it requires investment of time, money, and intellectual engagement from all educational sectors.



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## Assessment Innovation Fund

Considering this, NCFE believes that, as an educational charity with the core purpose to 'promote and advance learning, helping to create a fairer, more inclusive society', that we have a duty to actively participate in the future of assessment.

In 2020, we finalised a new five-year strategy that outlined our vision for the future of education and how we will focus our resources and efforts to scale our reach and impact through education and learning, primarily, and ultimately, for our beneficiaries. The objectives we set ourselves will ensure our learners have access to world class products and services that help them to fulfil their potential, not just in terms of academic attainment or employment outcomes, but also their wellbeing, mental health and happiness.

Our early research reinforced the importance of looking at assessment used in a variety of different ways and at different

stages of the learning journey, from pre-programme diagnostic assessment, formative, micro, and milestone assessment, through to summative end-point assessment and beyond. We believe that to be successful in our business strategy we can and must do more to shift the current dated, disconnected and transactional approaches to assessment within formal education to systems and approaches that are truly transformational for learners, educators and educational institutions.

We believe that there is a need to build a learner journey that brings the purpose and value of assessment at different points of the journey to life. An end-to-end learner journey will support learners to grow beyond the constraints of their subject area, develop their ability to learn and adapt, and build the agency they need to succeed in an ever-changing job market.

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Operating within this context, assessment will be:

- fair and inclusive.
- available as part of a formal qualification or programme and to recognise prior learning, skills and competence.
- on-demand and multi-channel.
- tailored to the delivery context and learner needs.
- robust, secure and credible to all stakeholders.
- supportive of continuous improvement in the learning experience.
- converted into a recognised store of value, whether a certificate, credential or otherwise.

To do this we need an approach to assessment that:

- connects data across diagnostic, formative, and summative assessment to provide insight into progress, trajectory, and any required course corrections.
- uses insight to improve teaching, learning and assessment, allowing leaders and educators to promote high expectations for achievement and progress.
- enables learners and educators to use data provided from assessment to make informed choices about their next steps and make the best choices in line with their desired goals, stretching and challenging learners to achieve beyond their expectations.

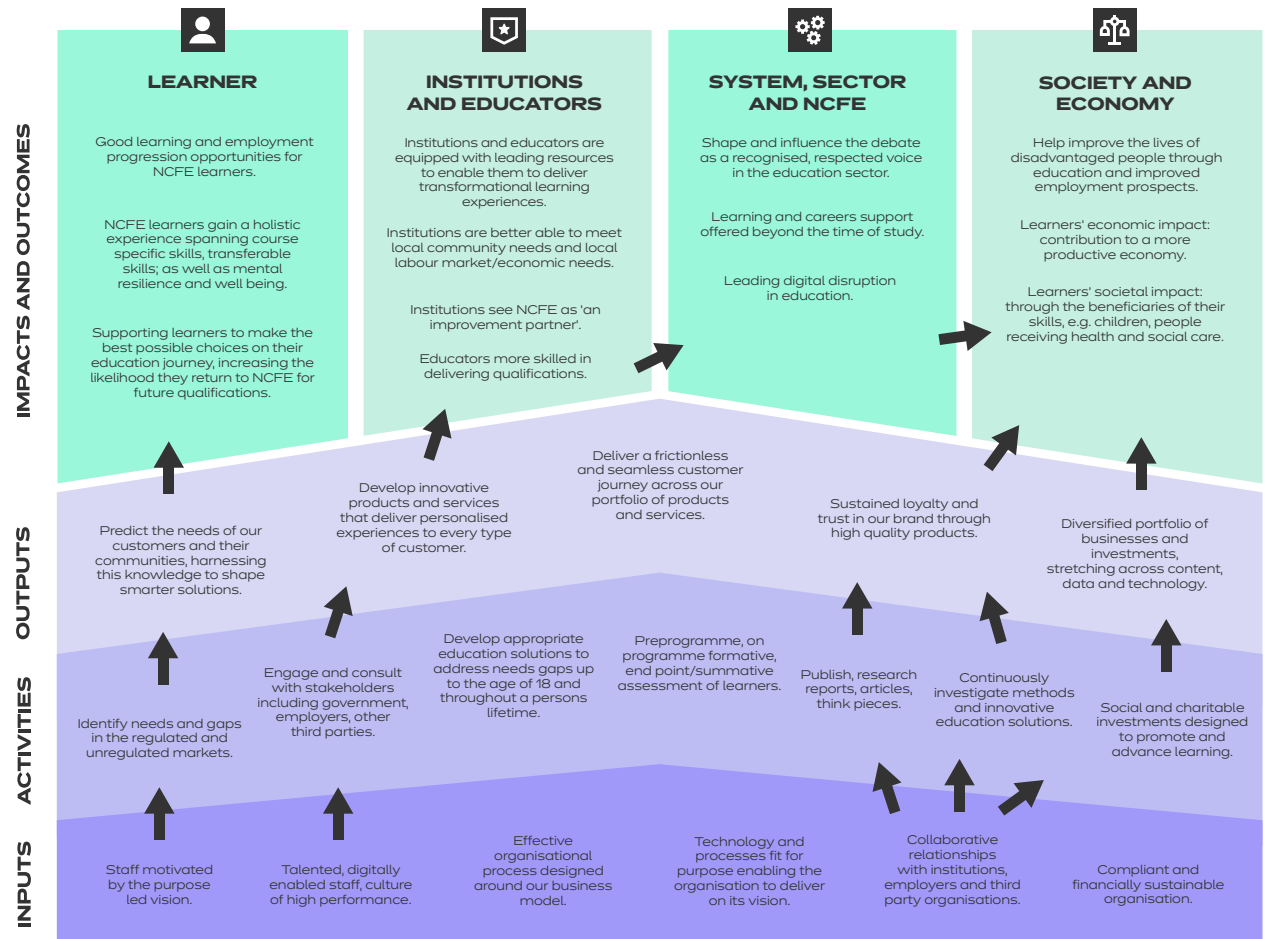
To this end, we launched the Assessment Innovation Fund (AIF). The purpose of the fund is to lead innovation within assessment across the sector in a controlled process that fills a gap in the evidence base. To date, NCFE has committed £1m of funding through their social investment strategy to support five windows of the AIF. The fund allows any organisation that has an innovative idea around the theme of assessment to apply for grant funding up to £200,000 (Impact Study) or £25,000 (Feasibility Study). Impact Studies test a new approach on circa 1000 learners with multiple establishments involved, while Feasibility Studies attempt to prove a new concept with circa. 50 learners involved.



# AIF reach and impact

In addition to the wider benefits to the learner, sector and society discussed throughout this report, the AIF contributes directly to the wider aims, as demonstrated by its adherence to the Theory of Change model included in the NCFE Impact Report 2022.

A Theory of Change model maps backward from an organisation's ultimate impact goal to its inputs, to create a clear chain between inputs, activities and outputs. Mapping these out helps us to define the mechanisms that need to be in place for impact to occur. The AIF contributes to multiple elements of this model at the outputs level, truly embodying NCFE's wider vision to shape smarter learning.



The impact of the AIF can be demonstrated in the following areas:

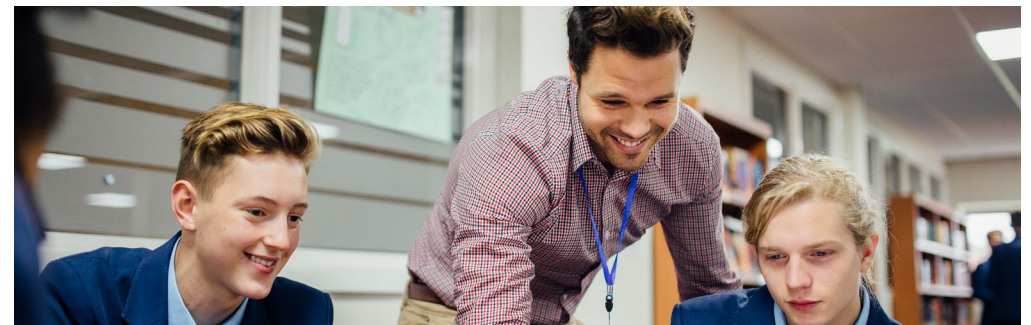
## Learners

- **3289** have participated in **12 funded** pilot studies to date.
- The fund has contributed to the creation of valid assessment to truly reflect the skills of learners and supported to develop more holistic learning and assessment to encourage lifelong learning.
- Learners have benefitted from greater personalisation due to recognition of individual learning needs.
- Greater preparedness for the workplace increasing likelihood of success, for example in The Sheffield College pilot where learners undertook formative assessment in virtual workplace environments such as kitchens and workshops.



## Institutions and Educators

- **206** educators across **2** continents and **49** institutions have participated in pilot studies to date.
- **126** individuals have benefited from training linked to the AIF.
- **114** applications have been received throughout all windows.
- The fund has contributed to greater sector understanding of new learning and assessment techniques, for example the Centre for Education and Youth's holistic approach to assessing year 6 pupils that better meets the needs of learners and educators.
- It has delivered transformational learning experiences outside of the traditional assessment methodologies, developed more choice and good practice for educators to embed. This leads to a greater ability to meet the assessment needs of learners and greater pedagogical knowledge for educators.



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## System, Sector and NCFE

- The fund has contributed to the generation of research and insight to influence the debate in assessment innovation, for example University of Newcastle Australia's pilot that is contributing to the academic discussion about assessment outcomes.
- The AIF is leading digital disruption by investigating the impact of technology on assessment and the education sector.
- It's affirming NCFE's voice as respected and recognised in the education sector, for example through conference appearances such as The FE Collective, co-chairing the JCQ group for AI in assessment, and co-authoring future of assessment articles with JISC.



## Society and Economy

- The fund has contributed to free and accessible research that contributes to the creation of innovative assessment methodologies that recognise the individuals' skills of the learner, thus increasing the likelihood of employment and progression.



Building upon this, several methodologies were used to establish the impact of the AIF across a range of contexts. Primarily, each funded project has an inbuilt evaluation process to ascertain the extent to which it had impact on its intended learner community, and each project has produced a final research report discussing this.

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From this, NCFE also wanted to consider the impact of the AIF itself and so conducted interviews with project stakeholders, and those who were unsuccessful in their applications, to determine what influence the AIF is having on practitioners and the sectors. Results of this may be seen in the case studies that follow later in the report.

Finally, NCFE undertook a social value analysis of the AIF using the National Themes, Outcomes, and Measures (TOMs) framework, and used this outcome to calculate a social return on investment ratio (SROI), to estimate the social value of the AIF.

Social value is used to describe the added value of initiatives that deliver wider benefits to both the local community and wider society.

Measuring the social value of the AIF allows NCFE to track and record the social benefits they are contributing to the wider education community. To measure this impact robustly, NCFE has adopted the TOMs framework as its reporting methodology. The TOMs framework is a recognised reporting standard and Local Government Association endorsed tool that follows the principles in HM Treasury's Green book for monetising economic, environmental, and social impact. This process ascribes proxy financial values to project outputs that bring community benefit but are, on occasion, overlooked in evaluation reports.

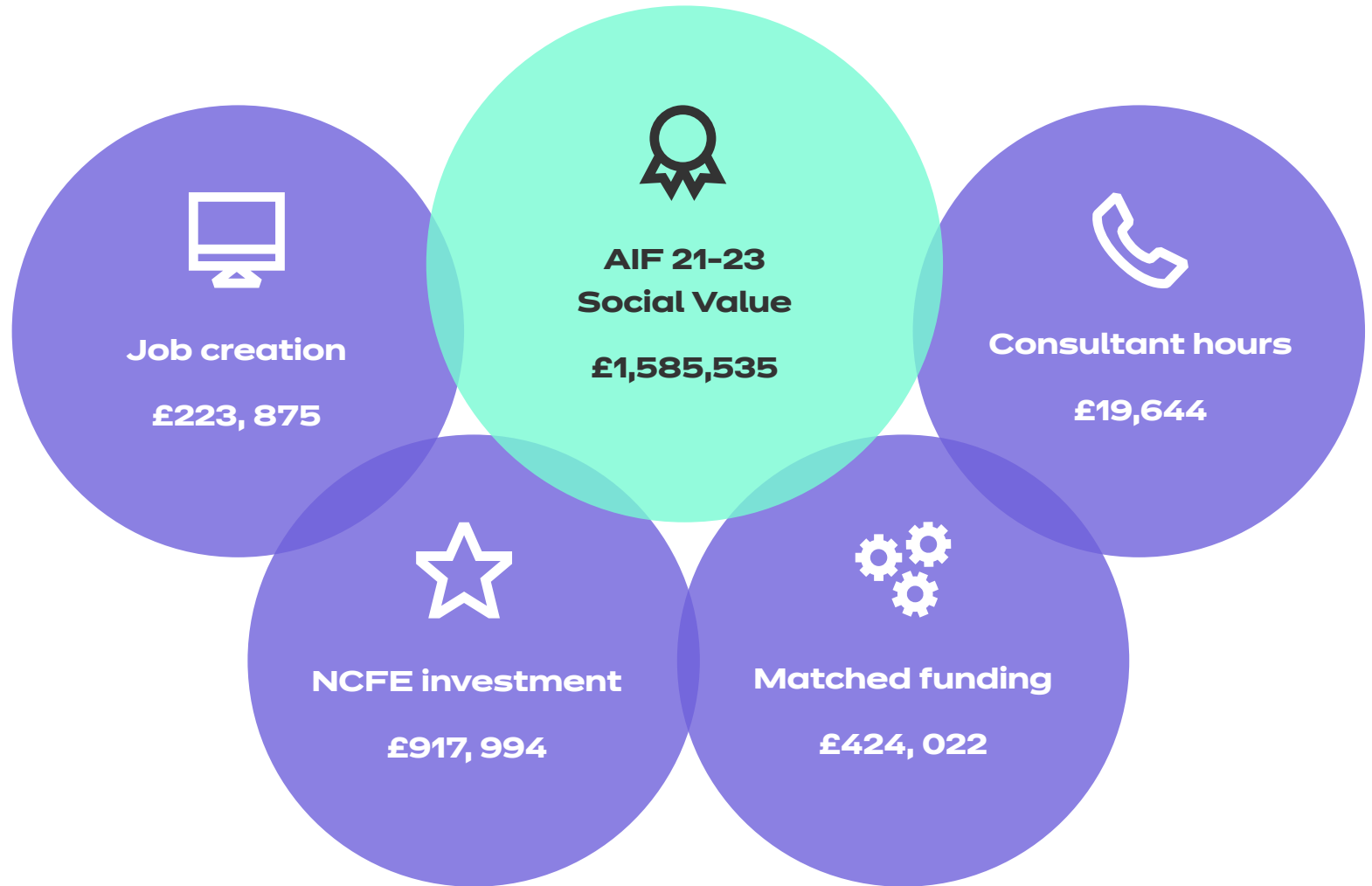
It is, of course, recognised that social value is not all about money, but this common language – the £ – is a powerful tool to ensure that the achievements of the AIF are not undervalued.

NCFE's social value calculation focussed on three primary strands:

- Investment and matched funding: the initial money given to pilots by NCFE and any matched funding secured by applicants due to the endorsement of the AIF.
- Consultant hours: the time given by industry experts to assess and assist with the pilot projects.
- Job creation: any roles created due to the AIF funding.

Each of these strands have a direct proxy value within the TOMs. These proxy figures result in a financial value for the social benefits that communities and wider society benefit because of the AIF initiatives.

The AIF generated **£1,585,535 in Social Value and our SROI was 1:1.7**. This means that for **every £1 invested £1.70 was generated in Social Value**. As per Social Value UK instructions, Social Return on Investment (SROI) is calculated by dividing the proxy value generated by the total amount invested. In this instance the amount generated as indicated above (£1,585,535) was divided by NCFE's initial investment (£917,994).



# AIF case studies

At present, three of the funded pilot projects have been completed. Each of these projects represents a different theme within assessment innovation: use of VR in assessment, digital badging, and holistic approaches to learning. The following case studies illustrate the unique contributions of each project to the wider research landscape, showcasing their particular impacts and insights and further demonstrating the purpose of the AIF. Furthermore, a case study of a project not funded by the AIF is included, to demonstrate the impact the fund has had on the wider innovation space.

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# The Sheffield College: using VR in summative and formative assessment

 **Learners:** 41  **Educators:** 5  **Sectors:** 3  **Society:** Positive impact on learners. Additional uses outside of assessment found.

The aim of the pilot was to explore how virtual reality (VR) can be embedded in assessment to improve the learning experience and outcomes for vocational learners.

It's a well-researched notion that practice and repetition are essential for learning and retaining information. As it's not always possible to have the time to practice in a practical setting, this pilot explored the possibility that VR could provide learners an opportunity to learn in a virtual setting.

The pilot used the AIF to purchase 30 Oculus Quest 2 headsets and create three VR assessment experiences in Animal Care, Catering and Construction.

Following the project, The Sheffield College is progressing its investment in VR technology. More curriculum areas have sought and secured internal funding to create their own VR environments and experiences to benefit their students. The headsets have also been used in other ways, for example to desensitise neurodiverse learners to an off-site location ahead of a trip, allowing all the cohort to attend.



So, we built a full virtual tour from meeting at the college and getting on the bus, driving to the place, getting off the bus, walking up these big outdoor steps, going to the venue, looking around, going in the kitchen, the toilet, the bedrooms, all that stuff going to where the activities would be like a full day three in virtual. We then brought in their parents and the students one evening to lecture there and let them watch that all in virtual reality.”

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This demonstrates the different applications the VR technology can be used for and can benefit those who have additional needs which links directly back to one of the societal impacts NCFE want to make through our Theory of Change Model.

This project needed external funding and support to go ahead, which was facilitated by the AIF. This funding gave the researchers the resource to purchase the equipment to deliver VR to whole classes, rather than just small pockets of students.

It also provided time and space to build and evaluate the VR environments and the assessments they contained. The fund has enabled further applications of VR technology outside the scope of the pilot and the positive results mean the technology has been embraced more widely by other areas of the college.

The project lead also discussed the support he received from the AIF team, which suggested that they not only benefitted from the fund, but from the expertise and knowledge from NCFE colleagues.



I think the fund is brilliant but probably the support I had from the team was brilliant. I've been in different bids and different things at different times, but what we had through AIF was organised, so clear, so helpful, fantastic."

The project lead plans to share the findings from the research with a wider audience across the sector. Thought pieces have already been written and published about the research and shared at FE conferences.

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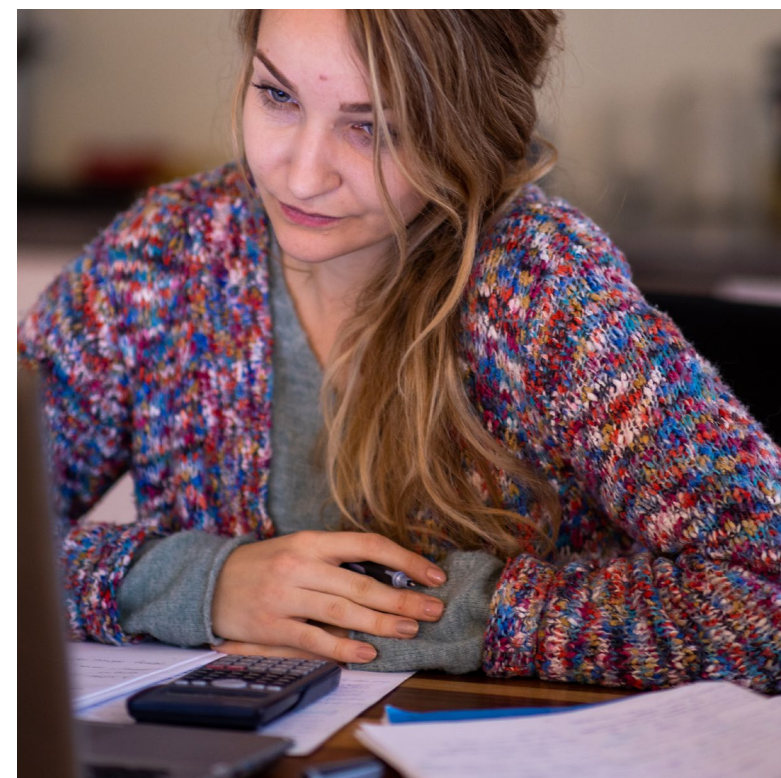
# The University of Newcastle, Australia: awarding of digital badges

 **Learners:** 938
  **Educators:** 36
  **Courses:** 3
  **Society:** Positive impressions across 7 employer stakeholders interviewed

The University of Newcastle Australia ran two pilot projects focused on awarding digital badges to teacher training students. The first pilot investigated the use of digital badges instead of numerical grades to undergraduates. The second phase investigated the awarding of badges for performance on final year placements.

The rationale behind introducing badges was to encourage learners to engage with their written feedback more meaningfully, to get more out of the assignment, and better understand where they could improve. Badges were connected to specific skills or competencies that students had to demonstrate, to show them precisely how they performed against all assessed areas.

The introduction of badges to 938 learners across three units was found to increase engagement with feedback. Researchers found that when students weren't given a grade, they engaged in a process to identify how they performed, leading to a greater understanding of the assessment rubric. However, an unintended consequence was that withholding grades on a unit that ultimately achieved a grade, caused significant amounts of stress for some students. Many students did, however, like having their grade awarded in a visual way.



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The second phase of the study looked at how employers viewed the badges. The employers were overwhelmingly positive about having greater visibility on where current and future employees were strong and areas that could be improved upon.

This project required external funding to roll out at the scale it did, which the AIF provided. The funding gave the researchers the 'headspace' away from teaching to be able to fully explore options and opportunities and conduct a thorough study into the awarding of badges. When asked about the impact of the fund the project lead said:



**The AIF enabled the project to happen. Developing the assessment tasks and developing the badge frameworks took a lot of time. The research team wouldn't have had the headspace to do that without the funding to take them away from teaching. Buying out teaching hours on the one hand and employing a research fellow on the other - the project needed so much. The conceptual work wouldn't have happened without funding. Coming up with a badge framework from scratch, it was a pretty challenging task initially."**

A report is currently under peer review with the academic journal Australian Society, supporting NCFE's role as a respected voice in the sector and linking to the Theory of Change model activities. Further, the university are actively exploring the use of badges in other departments and course types including short courses.

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# Centre for Education and Youth: development of Primary Extended Project Award



**Learners:** Programme designed for primary pupils in Years 5 and 6



**Schools:** 7



**Society:** Holistic approach to end of primary assessment, developing skills such as oracy and research

Research conducted by Centre for Education and Youth (CfEY) looked at different approaches to assessment, some of the challenges that assessment can present, and some of the innovative solutions that are being implemented across the world.

CfEY were conscious of the increasing number of high stakes assessments of primary students between years 2 and 6, placing a lot of pressure to perform in these early learning years.

The idea of the Primary Extended Project Award (PEPA) is to provide an opportunity to give primary pupils control over their learning, giving them agency to drive their own project forward. CfEY designed an assessment that would stimulate an interest in learning and support the development of skills around learning, rather than assessing retained knowledge.

The PEPA also aims to provide teachers with an opportunity to work with their students in a creative way and go beyond the traditional

classroom activities, enhancing the teachers experience and enjoyment of their job. This maps directly to the Theory of Change model, where NCFE can impact institutions and educators, equipping them with resources to deliver a transformational learning experience. To date over 50 educators have listened to the PEPA episode of POD-CACHE from Cache Alumni (NCFE's professional membership website for people working in care, health and education), helping to share and embed learning from the project, supporting practitioners to understand the benefits of Project Based Learning and make links between the EYFS and the provision of ongoing holistic education.

This pilot has created a job for a former primary teacher who was on a career break carrying out research of her own. CfEY employed her as a freelancer to work on the project and she has now become one of CFEY 'catalysts'. Catalysts will get involved with project work at different points, on a freelance basis, but they will also help with the sharing, information dissemination and publicity of the work as well.

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At this stage CfEY are looking for funding to roll out the programme in a larger pilot. There are a lot of schools interested and many organisations have approached CfEY about the PEPA, but as yet there has been no-one who can provide sufficient funding for a roll out.



Given the experience that we have had in terms of securing funding for the following stages, we really, really appreciate the investment in this and at the design stage.”

The monetary aspect was not the only impact the fund had on the project. The support from the AIF team was crucial:



It was a great time to be able to develop it and think you know NCFE engagement with it was really crucial to that. The input from NCFE that we had across the design process was really valuable, we worked with Gray Mytton and he was incredibly supportive of the process. And you know, when we were kind of initially scoping out the work he has helped put us in touch with other people who could share background knowledge and he's also put us in touch with other people who might be interested in getting involved at later stages and other people across the team gave feedback on the idea that was really useful.”

# Impact of AIF on non-funded pilot - NHS: Virtual Patient

This research was designed by Northumbria Healthcare Trust and was tasked with "making every contact count", which translates as having a health conversation with everyone at every opportunity. Northumbria Health Care Trust covers a population of three million people and already offers training and education programmes designed to improve the quality of conversations medical professionals have with individuals regarding their health.

Researchers planned to develop a virtual patient who would help practitioners to have better conversations around physical activity. Traditionally staff learn to have these types of conversations through role play, which can often be awkward, and have limited real life application. The tool was designed to help practitioners recognise cues which could prompt a conversation around physical activity or weight management that could support the end user to make small behavioural changes now to prevent things becoming an issue in the future.

Although the project didn't receive funding from AIF, the process of applying and receiving feedback on the application demonstrated where the strengths and weaknesses of the project lay. It also helped Northumbria Healthcare Trust recognise that the idea behind the tool was worth investing in and increased confidence to take things forward, rather than looking for outside funding.

The project has subsequently been funded through internal channels. The researcher praised the specialist knowledge of the AIF team which helped them understand the strengths of the project and see that the idea was a good one, and where an application for other funding could be improved.

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# AIF Legacy: space, knowledge, and networks

The primary impact of AIF is the creation of a collaborative, investigative space that provides practitioners with the funding, time, support, and intellectual rigour to seek knowledge and good practice in relation to innovative assessment.

To be clear, the creation of such a space is revolutionary and sector leading. Too many investigations into innovative assessment remain siloed, hamstrung by a lack of collaboration, funding, and testing. Whilst this remains the case it will be impossible to campaign for wholesale change to how we carry out assessment and what we understand as the primary purpose of assessment.

AIF aims to challenge this, by supporting practitioners in their investigations through funding and expert knowledge, to produce valid and reliable evidence of good practice and innovation that can be shared with a network of likeminded peers. None of the projects discussed in this report would have taken place without the AIF. Every contribution to knowledge from this fund will help to bring greater equality, validity, and reliability to assessment going forwards, and each contribution was made possible by the AIF.

Whilst we are incredibly proud of the success of the AIF to date, we are committed to improving on this excellence as we enter into the sixth round of funding. Hence, we have identified three primary areas of improvement going forwards to increase the reach, scope, and impact of the AIF.

## Social Value

So far, the AIF has generated an impressive £1,585,535 of social value, but through this analysis we have identified multiple instances of social value creation that, so far, our evaluation methodology has failed to capture. Going forwards, it's intended that each pilot project will work with internal NCFE teams to embed additional social value measures from the start of each pilot, allowing for a more holistic social value figure to be captured.

At present, our social value measures calculate the impact of the AIF itself, meaning there is a swathe of larger benefits resulting from the pilots that are not being reported on; the implementation of new evaluation methods seeks to address this.

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## Knowledge Sharing

Further to this, whilst the AIF has done much to create a collaborative research space for practitioners, we recognise that there remains much to be done in terms of creating a network of experts that truly allows the knowledge generated by these pilots to be shared.

Hence, we are committed to the creation of a network to negate the issues of knowledge siloes within assessment innovation. The aim of this network will be to bring together all parties and individuals impacted by the knowledge generated by the AIF to allow them to implement it in their practice, generating radical change.

Moreover, much research within assessment innovation remains small scale, denied the credibility of other research projects, and so we also aim to encourage all relevant pilots to seek publication in peer reviewed journals and to present their work at international conferences.

The validation of AIF research in this way enhances its credibility, ensures AIF contributes to the wider body of literature, and ultimately ensures that practitioners can be confident when implementing findings in their practice.

## Expansion

Finally, we wish to expand and build upon the incredible successes of the AIF thus far. NCFE is incredibly proud of everything the AIF has achieved to date, but we refuse to rest on our laurels and remain simply satisfied.

In moving into our sixth funding window, we want to expand the scope of our knowledge dissemination, increase our impact on learners, society and the sector, and finally, further establish the need for funded, robust, research into innovative assessment.

