

The Future of Learning and Teaching:

Defining and delivering an effective and inclusive digital/blended offering











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The state of the nation: findings of research conducted by QAA Scotland, College Development Network, Education Scotland and sparqs

February 2024

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Introduction

This report presents research findings brought together by four Scottish quality agencies - QAA Scotland, Education Scotland, College Development Network (CDN) and sparqs (Student Partnerships in Quality Scotland) – on the topic of digital and blended learning. These findings are based on research conducted between April and September 2023 as part of an ongoing cross-agency project on the topic. The project has been made possible by the strong partnership approach to enhancing the quality of learning and teaching in Scotland, including partnership between the quality agencies and the Scottish Funding Council (SFC). It supports SFC's ambition for high quality provision in a changing learning and teaching context.

Online and blended learning have been expanding steadily over time. There are a range of drivers for this. Blended learning has the potential to offer flexibility for learners, while supporting institutions to respond creatively to changes in the composition of the learner body; there are also sound pedagogical reasons for building on the opportunities and learning created by the shift towards online learning. The COVID-19 pandemic in 2020 catalysed further expansion of online provision, with educators responding rapidly and creatively to restrictions that made face-to-face provision challenging.¹

Post-pandemic, the sector is in a period of transition. While the shift to emergency online provision was challenging, it led to reflection upon what was being offered and how. Our learners continue to value the flexibility offered by blended learning, and this is unlikely to change. Institutions are rebalancing resources in order to ensure that face-to-face provision is enhanced by digital provision. However, the question must be raised: *how can institutions respond adequately to the variety of learner preference to get the blend right?*

There are several other important contextual factors at play. With environmental sustainability high on institutional agendas, a shift towards blended learning (and its consequential increase in online provision) offers both opportunities and challenges. It has never been easier to offer learners opportunities to interact with educators and researchers from other countries; this can also support internationalisation. However, online provision comes with its own carbon footprint. Video calls are energy-intensive, as are other technologies (such as generative AI) that are likely to play a greater role in future learning and teaching. Institutions must address a range of questions about each technological development. How can this technology enhance blended learning? Will it improve accessibility and inclusivity, or will it create barriers? What is its environmental impact? Can it be sustainably resourced in a challenging economic climate? How can we ensure that both staff and learners have the skills to use the technology effectively? And what are learners' expectations about access to technology?

In its guidance on quality for 2022-23 and 2023-24,² SFC identified through review outcomes and discussion across sector networks that there was a need for focused attention on the

¹ It is important to acknowledge that online provision during the early period of COVID-19 restrictions was an emergency response and marked the beginning of a period of intense upskilling for educators and learners across the sector.

² www.sfc.ac.uk/publications-statistics/guidance/2022/SFCGD222022.aspx

design and delivery of an effective and inclusive digital/blended offering and established this as a **tertiary enhancement topic** for the two years. The Scottish Government and other stakeholders including learners and educators have an ongoing interest in this issue.

Each year of the project (2022-23 and 2023-24) has a different aim:

Session	Aim
2022-23	To establish what the current balance of different modes of curriculum delivery (face-to-face, blended, online, hybrid) looks like across Scotland, with a particular emphasis on the relationship between strategy, practice, and the learner experience.
2023-24	Building on the work undertaken in session 2022-23, to establish the effects of different modes of curriculum delivery on learner outcomes and experience, and to facilitate regional and national conversations and the sharing of practice.

The project is built around four lines of enquiry:

- A. What do institutions state they are offering?
- B. What do learners want?
- C. What are learners experiencing?
- D. What does the evidence suggest is best for learning?

As well as addressing each line of enquiry directly, the project is exploring the relationships between them: for example, whether there are differences between learning and teaching strategies (line of enquiry A) and what is being delivered (line of enquiry C), or between what learners want (line of enquiry B) and what the evidence suggests is best for learning (line of enquiry D). The scope of the project includes all tertiary institutions in Scotland but is limited to full-time provision at SCQF levels 4-10.

In session 2022-23, the project has predominantly involved gathering and analysing data relating to these lines of enquiry, including the learner voice. In session 2023-24, the project will involve enhancement/change activity, using the findings from session 2022-23 to support regional and national conversations and developments. It is anticipated that line of enquiry D (What is best for learning?) will provide the point of focus in session 2023-24. This is where the project will begin to examine any potential impact of modes of curriculum delivery on learner outcomes, and to consider how best to equip learners to understand which modes might best support their learning.

The project is overseen by a Steering Group with members from each partner agency involved (QAA, Education Scotland, CDN, and sparqs) and SFC's Learning and Quality Team.

Definitions

The table below summarises the four key terms that will be used in this report, along with their proposed definitions. These draw on two documents: CDN's *Digital Capability: A*

Scottish Landscape Review³ and QAA's Building a Taxonomy for Digital Learning.⁴ The latter does not offer definitions of any of the following terms but outlines the nuances of how they are used and possible negative connotations they may carry. Nonetheless, taking a pragmatic approach, the following terms and definitions have been used. We have also consulted with colleagues at Jisc, who advised that they do not have set definitions as terminology is often dependent on context.

Term	Definition	
Online	Learning that takes place in a digital environment, whether	
	synchronous or asynchronous.	
Blended	A combination of face-to-face learning with separate periods of	
	typically asynchronous online activity.	
Face-to-face	Learning or teaching that takes place with the learner and educator in	
	the same physical space at the same time - this may be, for example,	
	a lecture theatre, classroom, laboratory or workplace.	
Hybrid	Teaching a mixed group of face-to-face and online learners	
	simultaneously.	

We have used these definitions to structure our findings. As we have found that blended learning is effectively now the 'default' mode of provision across the sector, we are presenting our findings on blended learning first, followed by findings relating to online provision, face-to-face provision, and finally hybrid provision.

These definitions are offered with the caveat that a proliferation of terms are used to describe these different modes of provision, some of which are contended and many of which are used interchangeably. That we have adopted these definitions should not be read as an endorsement of these particular terms at this stage. As will be seen in our proposed work for the remainder of this academic year, we plan to do more work to clarify definitions of common terms.

Method and caveats

To accommodate the different review methods and sources of intelligence available for colleges and Higher Education Institutions (HEIs)⁵, we adopted a flexible approach to data gathering. We planned and enacted our research in such a way as to minimise the burden on staff and learners, drawing wherever possible on existing evidence including institutional learning and teaching strategies and reports from regular review activity. It is worth noting that access to data differs across the two parts of the sector: for example, it was more challenging to find learning and teaching strategies for colleges than for HEIs, while colleges were able to provide a more detailed breakdown of mode by subject and level. This meant that our blend of research methods was different for each part of the sector, and this is reflected in the presentation of our findings.

³ www.cdn.ac.uk/wp-content/uploads/2021/08/Digital-Capability-A-Scottish-Landscape-Review.pdf

⁴ www.qaa.ac.uk/docs/qaa/guidance/building-a-taxonomy-for-digital-learning.pdf

⁵ Scotland's universities plus Glasgow School of Art, the Royal Conservatoire of Scotland and Scotland's Rural College

For colleges, we examined data collected via: a survey conducted by CDN in February 2023, to which 17 colleges responded; analysis provided by Education Scotland based on a summary of engagement of HM Inspectors during session 2021-22;6 and institutional learning and teaching strategies where available. We then invited a sample of four colleges to participate in interviews to explore the quantitative evidence gleaned in the survey. We selected these colleges on the basis of: their relatively low face-to-face delivery (two rural colleges); their relatively high hybrid delivery, where learning is 100% synchronous (one college); and one college with little in the way of hybrid delivery and where delivery is 100% synchronous.

For HEIs, desk-based research was conducted for all 19 institutions, focusing on the findings from Quality Enhancement and Standards Reviews (QESR) carried out in session 2022-23 along with institutional strategies (learning and teaching, digital, and any other relevant documentation). As part of the QESR method, HEIs were required to submit a short document reflecting on the institution's engagement with this topic, and these documents provided valuable insights. All HEIs were then invited to participate in short interviews with QAA Scotland officers to address remaining questions. We interviewed 13 out of the 19 HEIs.

Opportunities to engage with learners through these review methods were limited, and the involvement of sparqs was therefore critical to ensure that the learner voice was captured. The question set was adapted for both individual student officers and students' associations, and was used as the basis for discussion with student officers and students' association staff in a range of face-to-face settings, including meetings of the National Education Officers Network (NEON) and Student Engagement Staff Network (SESN) (March 2023). Colleagues at sparqs also had access to data from surveys on the online learning experience carried out by students' associations in two HEIs and one college.

In September 2023, we organised a face-to-face event in Glasgow on this topic, bringing together staff and learners from colleges and HEIs. As well as offering a professional development workshop on curriculum design, we took the opportunity to test our initial findings with attendees, and to gather further data. Delegates were asked to work in small groups for much of the day. We allocated groups in advance to try to ensure a mix of college and HEI representatives, and of staff and learners, as far as was possible. Each group was provided with a pre-printed sheet that included prompt questions and space to record their answers. They were also asked to engage in an online (Menti) poll.

Throughout this report, we have used the following quantitative terms, developed by Education Scotland:

Almost all	Over 90%
Most	75% to 90%
Majority	50% to 74%
Less than half	15% to 49%
Few	Up to 15%

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⁶ education.gov.scot/media/tiggxfip/hmie-engagement-in-scotlands-colleges.pdf

Main findings

Current practice in colleges

This section includes findings relating to provision at SCQF Level 6 and below, and then at SCQF Level 7 and above. Before looking in detail at practice in session 2022-23, it is worth reflecting on the findings of HM Inspectors engaging with Scottish colleges during session 2021-22,⁷ as this represents a transition between the emergency response to the pandemic and current practice.

In general, colleges delivered online learning effectively. All colleges had adapted their curricula to accommodate the increasing demand for online and blended provision, and almost all colleges reported that some approaches to blended provision adopted during the pandemic may remain in place in the future. Digital enhancements include online access to teaching materials, online assessment, and online lesson delivery, and support services are also delivered online. Technology used to support digital provision includes Virtual Learning Environments (VLEs), online videoconferencing facilities and social media.

Session 2021-22 also presented some challenges. In a few colleges, some learners did not have access to an appropriate device to enable them to participate fully in online learning, or access online college services. A few colleges were found not to have sufficient arrangements in place to assess the level of digital skills of learners prior to enrolment. This meant that some new learners did not have sufficient digital skills be able to engage fully in learning activities at the start of their programme. The use of multiple digital tools and platforms was also found to present complexities and challenges for some learners.

Access to practical programmes was particularly affected by periods of college closure. In most colleges, learners on Further Education (FE) programmes at SCQF levels 4-6 that are predominantly practical experienced challenges in maintaining motivation and engagement when delivery was not on campus and face-to-face. Managers and staff in almost all colleges recognise that FE learners are more likely to find online learning challenging, and this is borne out in learner withdrawal and attainment rates. Attainment rates for learners on full-time FE (SCQF 4-6) programmes had declined overall. Teaching departments took account of COVID-19 restrictions, including social distancing, to carefully plan and prioritise a return to on-campus learning for the most affected subjects. Data gathered for this report indicates that almost all full-time FE delivery in colleges is now taught synchronously, with the majority of subject areas taught 100% synchronously.

Some colleges reported challenges in working with secondary schools to plan and deliver provision for young people in the senior phase. In some colleges, the number of school-age learners undertaking college provision reduced significantly for a number of reasons, including pupils preferring in-school learning to online delivery of college programmes. The

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⁷ education.gov.scot/inspection-and-review/hm-chief-inspector-reports-and-guidance/other-inspection-findings/college-sector-overview-report-202122 education.gov.scot/inspection-and-review/hm-chief-inspector-reports-and-guidance/other-inspection-findings/national-overview-colleges

breadth of college curriculum accessed by young people narrowed as a result.

In summary, digital poverty, varying levels of digital skills, and learner readiness to learn have continued to influence curriculum design and delivery. This is particularly evident for FE level learners (SCQF 4-6). Further work is required to fully understand the pedagogy required to engage learners in their programme at each SCQF level, and to evaluate what works well in supporting learner retention, attainment, and achievement.

In addition, some colleges were found not to be taking sufficient action to monitor learner progress across programmes where learning and teaching was blended.

SCQF Level 6 and below

Blended provision

There was consensus among interviewees that blended learning is a now feature of all college delivery to some extent. What this means in practice is varied and this may be due to varying levels of understanding about designing and delivering blended learning. Interview participants reported lectures being recorded and available online as a feature of blended learning, along with the use of online repositories for resources including VLEs. They also reported using Microsoft Teams to consolidate the learning experience, with one interviewee emphasising that this technology also supported social interaction. While these all represent digital enhancements, it is likely that others view such enhancements as standard for all learners, including those learning face-to-face (this is particularly true of VLEs).

Online provision

Few full-time FE programme in colleges are delivered entirely online. However, there are examples of colleges where, although less than half, the proportion of online delivery is not insignificant. As with level 7 and above, the evidence suggests there may be a geographical dimension to the extent of the use of online learning at level 6 and below, with those colleges with more rural catchments tending to make greater use of online as opposed to face-to-face provision.

An example of online delivery of FE provision is UHI West Highland's Foundation Apprenticeships, which are delivered online through the Virtual School. Classes are offered on Google Classroom or the institution's VLE, Brightspace. In addition to providing access to learners in rural areas (who can choose to study where they live), part of the rationale for online delivery is that some employers are offering the work experience element online (for example, those in the cyber security industry).

Where demand for a particular programme is low for individual colleges, online delivery offers a way of bringing together one cohort as those colleges may work together in partnership. This can make such programmes more viable and sustainable as well as widening access. For example, UHI West Highland currently shares the delivery of an online course with UHI Argyll and UHI North Highland, with each college delivering one third of the teaching.

Face-to-face provision

Almost all colleges are delivering almost all of their full-time synchronous FE provision faceto-face.

While some colleges, especially those situated within rural environments, have continued to make some use of online learning for all levels of provision, colleges where geography poses less of a barrier to face-to-face learning and teaching report having encouraged learners back onto campus post lockdown. One interviewee reported that programme teams had been given autonomy to decide on the most appropriate mode of delivery, but that learner feedback had clearly indicated a desire to be back on campus.

A further interviewee described their approach to face-to-face delivery post-COVID-19 where face-to-face provision was prescribed for learners at SCQF levels 1-6. Their perception was that HE learners were more able to cope with online learning while FE learners tended to require more support and in-person engagement. Again, learner feedback had been key, and had indicated a desire to be on campus.

An interviewee from another college reported that learners and staff had desired a return to campus post-COVID and that since learners were brought back onto campus for face-to-face provision, learner engagement had improved greatly.

Hybrid provision

Where full-time FE delivery in colleges is concerned, few subject areas make use of hybrid provision as defined in this report. Where there is hybrid provision in those colleges interviewed, subject areas include Business, Management and Administration; Care; Computing and IT; and Education and Training.

Colleges offering hybrid provision report doing so for the benefit of widening access learners (for example, those with caring responsibilities or health challenges), with one interviewee describing it as a 'godsend' in this regard. In one college, hybrid provision is being used for a cohort of learners who have not been able to attend the campus due to a shortage of student accommodation. This approach was regarded as a temporary solution; plans are being put in place to address the accommodation crisis, and the college is keen that these learners experience an on-campus experience to aid their sense of belonging at college.

However, hybrid provision is largely characterised as something that is used on an *ad hoc* basis in order to meet the needs of individual learners or staff, or to remove barriers created by illness or adverse weather - in effect, as a way of ensuring access to learning when face-to-face provision is not possible. It is not always labelled as 'hybrid' or even viewed as a mode of provision in its own right.

One reason for this is a general concern about providing an equitable learning experience for learners who are not in the physical classroom as their peers. Interviewees also flagged up more practical concerns, such as the availability of teaching spaces with appropriate acoustics, hardware and software; the systems for managing bookings and demand; and the investment required. One interviewee reported that their college actively 'steered away from

hybrid apart from when it's about supporting individual learners for accessibility and flexibility'.

While this tells a positive story about the potential of technology to offer a personalised learning experience (not to mention the responsiveness of staff to learners' needs), the unplanned nature of such provision also poses a potential challenge in terms of gauging its effectiveness.

SCQF Level 7 and above

The data indicates that, in almost all colleges almost all (full-time) HE delivery in colleges is taught majority synchronously. The balance of different modes of full-time HE provision in colleges is as follows.

Blended provision

Our interview data suggests that blended provision is a feature in colleges where delivery is synchronous. As with provision at level 6 and below, what is understood by 'blended provision' varies, ranging from a commitment to use digital tools to enhance face-to-face synchronous provision (including assessment) in colleges where there is little online provision, to more considered approaches that aim to achieve the optimum balance of online and face-to-face provision. One interviewee noted the importance of on-campus, face-to-face provision during the first few weeks in order to help build rapport with learners.

Blended provision can also support asynchronous delivery (one interviewee reported that they used blended learning to facilitate their asynchronous 'flipped classroom' approach, with learners having access to online repositories of resources). One interviewee reported that pre-pandemic blended provision had tended to be more asynchronous, while post-pandemic there had been a move towards synchronous blended provision.

Some interview participants pointed to the pandemic as having been a key learning point for building skills and delivery in colleges, and expressed a desire to retain that learning, along with other benefits (such as being able to teach from home, and to larger numbers online than would be possible face-to-face).

Online provision

Our evidence suggests that few HE subject areas are delivered fully online in colleges, with only one college delivering a majority of its synchronous full-time HE learning online, and the majority delivering few subject areas in this way. As with provision at level 6 and below, there may be a geographical dimension to the extent of the use of online learning, with those colleges with more geographically dispersed catchments tending to make greater use of this mode.

Face-to-face provision

Where HE provision in colleges is synchronous, almost all of this is currently face-to-face. Our interview data suggests that - as with provision at level 6 and below - the decision to

bring learners back onto campus post-pandemic was based on a desire expressed by learners (and, in the majority of cases, staff) to return to face-to-face provision. This appeared to be especially true in practical subject areas such as hairdressing, beauty, art, sport, engineering, and construction.

In terms of rationales for returning to face-to-face provision, we would like to highlight three key points arising from the interview data. The first is that campuses are a critical location for practical support that is especially important during the cost-of-living crisis. One interview listed 'free soup and free breakfast, free toiletries, book-swaps and free haircuts' as material support that was only available to learners on-campus.

The second key point is that face-to-face provision is viewed as supporting the promotion of active and collaborative learning. One interviewee reported that learners wanted to 'learn collectively with other students' in an on-campus setting, and another noted that face-to-face collaborative learning provided important preparation for employment (in this case, working with other scientists in a laboratory setting). Relatedly, face-to-face learning is crucial to programmes that include practical work.

The third key point is that face-to-face provision is viewed as fundamental to the college experience. Interviewees argued that bringing learners together on campus fosters a sense of belonging in college and the community, the campus acting as a focal point to bring people together from across their geographical regions.

Colleges' approaches to decision-making and planning in regard to delivery modes are driven by their strategic objectives and feedback from staff and learners, as well as ensuring the offer is appropriate to meeting learners' needs.

As noted above, understandings of what constitutes 'blended provision' varies, and it is likely that the provision described in this section will involve some level of digital enhancement: one interviewee reported that learner feedback reflected a desire for 'face-to-face, appropriate real-life learning *enabled by digital*' (emphasis added).

Hybrid provision

Few full-time HE subject areas are delivered via hybrid provision, with the highest proportion of full-time HE hybrid provision in colleges that serve rural areas.

In general, programme teams have significant autonomy when it comes to determining which mode is most appropriate for their learners, including hybrid. However - as with provision at level 6 and below - hybrid provision tends to be arranged to accommodate, for example, individual learners who have particular needs at any given time. One interviewee gave an example of hybrid provision having been arranged for a learner who was unable to attend campus as they had broken their leg; another reported that hybrid provision had positively impacted staff absence rates.

The reasons that hybrid provision has not been widely adopted, and the challenges posed by the *ad hoc* nature of the hybrid provision that does exist, are as described in the section on provision at level 6 and below.

Current practice in Higher Education Institutions (HEIs)

We found that almost all current provision in HEIs may be described as blended learning: face-to-face, on-campus provision augmented by digital tools and technologies. This is reflected in institutions' learning and teaching strategies, digital learning strategies, values, and standards. In almost all institutions, digital tools and technologies have become a core part of the learner experience, enhancing learners' experiences of both onsite and offsite provision and providing rich and innovative learning. Such tools and technologies support both synchronous and asynchronous delivery and include resources such as online tutorials and seminars, recorded lectures, and eBooks and equivalents (the latter in particular requiring significant investment). Crucially, it is believed that digitally enhanced learning environments support learners to develop digital skills and literacies aligned to their disciplines and ultimately their future professional roles.

There also appears to be a growing emphasis on the role of social interaction in the learning experience, regardless of whether the learning takes place in an online or face-to-face context. It is difficult to quantify how many institutions this applies to as it was expressed in a variety of ways by our interviewees, but it is related closely to a recognition of the importance of learners' sense of belonging.

The social dimension of learning appears to be coupled with a strong emphasis on *active learning* (based upon social constructivist approaches to learning and teaching), in which learners engage in collaborative activities with peers to construct their knowledge and understanding. Almost all institutions are moving away from the traditional 'content transfer' orientated timetable to active learning and learner engagement. This reflects institutional and learner priorities and expectations about access to intellectually stimulating, creative environments. In a majority of institutions an even stronger emphasis on active engagement was evident, with didactic lecture materials and knowledge exchange to be adopted only if they could not be delivered in a more interactive manner in the classroom. This supports learners to play an active role in their learning, to enhance their capabilities as independent and lifelong learners, and to learn within a vibrant campus as part of a connected learning community. The shift from passive to active learning is taking place in parallel with the shift to blended learning and is viewed by a majority of institutions as the more important development.

To support the meaningful adoption of blended learning, institutions are providing staff development opportunities, with accompanying resources and training to ensure educators are familiar with digital learning tools, technologies and environments. Such activities are often linked to a qualification such as a PGCert or fellowship of the HEA. Staff development units will call upon well-known frameworks such as the Universal Design for Learning or UCL's ABC Framework whilst linking them to institutional strategies. A variety of communication mechanisms are used to inform staff about the different modes available to them and their expected implementations. Short life-working groups are often used as a mechanism to develop strategies, priorities and values and as vehicles for communication.

Such changes in learning and teaching approaches have also led institutions to review their physical estates to ensure that spaces are being used efficiently and effectively.

Blended provision

There appears to be widespread consensus that blended provision should combine the best elements of face-to-face and online provision, though the nature of the blend depends upon the institution, its learners, the subject, and the level of study.

A majority of institutions are re-evaluating their learning provision in some way, whether through major curriculum projects, regular evaluation of online provision and the digital tools and technologies that support it, or some mix of these approaches. In doing so, institutions are generally drawing on emergent literature about blended provision. One institution helpfully cited Jisc's *Learning and teaching reimagined: a new dawn for higher education:*

Blended learning seems to exist on a continuum in terms of the ratio of online and onsite elements. On one end of this scale can be the use of online resources in class. In the middle there may be a flipped classroom scenario where the dissemination of knowledge is done via pre-recorded lectures, videos, etc. which is followed up by an onsite or online synchronous Q&A or practical session. (Maguire et al., 2020).8

Alongside current scholarship, the learner voice is a key factor in determining institutional approaches to getting the blend right.

A few institutions are exploring blended attendance: in this case, some modules in a programme are fully online, with a few face-to-face. This is usually in health subjects, but such an approach is limited due to visa requirements for international learners.

Online provision

Online provision - where learners never (or very rarely) attend physically on-campus - is offered by few institutions and is usually limited to niche, professional courses (often at Masters level or aligned with professional bodies) with small numbers of learners. A notable exception to this pattern is the Open University in Scotland, at which 'online distance learning' is the default mode of provision across all levels. The OUiS complements its online provision with face-to-face residentials, though our interviewees reported that in some subject areas there were discussions about moving these sessions online. Of the other institutions that offer online programmes, a few require learners to attend on campus for, for example, summer schools. A few online programmes are also offered in face-to-face mode.

Drivers for the expansion of online provision are quite specific and include limited space on the physical campus, perceived market gaps, and opportunities to support upskilling and lifelong learning. Educators with experience in designing online learning are often called upon to assist colleagues to move into this mode of provision.

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⁸ www.jisc.ac.uk/reports/learning-and-teaching-reimagined-a-new-dawn-for-higher-education

Face-to-face provision

The amount that learners are expected to attend face-to-face varies, but it is usually above 75% of a learner's allocated educational provision and often significantly more. Some institutions are more prescriptive than others.

A majority of institutions told us that fostering a sense of belonging was a challenge in the online space, the implication being that face-to-face attendance on campus was more conducive to developing and maintaining learners' sense of belonging. It is therefore not encouraging that rates of face-to-face attendance appear to be lower than they were prepandemic. There are concerns that learners have forgotten what it is to be a learner, how to learn, and the benefits associated with campus familiarity (for example, developing a peer support network, being part of a community, and engaging with extracurricular and wraparound curricular activity such as computer groups). Current scholarship suggests that learners who have a sense of belonging are more likely to attend, engage and succeed, so it is perhaps not surprising that this emerged as a matter of concern in our interviews.

Hybrid provision

This appears to be the least understood of the modes we investigated, and this is likely due to it not being in widespread use. While fully hybrid provision would offer learners maximum flexibility (allowing them to attend online or face-to-face as desired), it is the most resource intensive of all the modes, requiring appropriately equipped spaces and appropriately skilled staff, and can be particularly challenging for some learners (for example, BSL users). As in the colleges, there is concern about whether learners receive an equitable experience depending on how they choose to attend. A few institutions have gone so far as to ban the mode or to emphasise that it is not officially supported due to concerns about ensuring parity of learner experience.

Student voice

While learners' views have remained relatively consistent since pandemic restrictions were first introduced, research conducted by sparqs has provided some new perspectives. Below is a summary of themes emerging from discussions with student representatives and student engagement staff during session 2022-23. It is important to caveat this summary by saying that learners' views are not disaggregated here by level of study. However, across the events at which there was consultation on the topic, participation was well-balanced between colleges and universities:

- SESN (Student Engagement Staff Network) meeting (12 attendees from universities, including 4 from the University of the Highlands and Islands); 7 attendees from colleges
- NEON (National Education Officer Network) meeting (8 attendees from colleges)
- Student Learning Experience workshops (11 held at universities, including 1 at the University of the Highlands and Islands; 8 held at colleges)
- Other online workshops that attracted a mix of attendees from colleges and universities.

Community and belonging

Learners who had experienced all or most of their learning online expressed a desire for more sense of community and belonging. Learning exclusively online meant that some learners had not been able to form relationships with their classmates/peers, which could lead to feelings of disengagement and isolation, with knock-on effects on mental wellbeing. Additionally, some online learners felt that they were 'second class citizens', as in a few institutions they had not been included in learner groups and services or mailing lists, and the support they were receiving had not been consistent with that received by learners who attend classes on campus (for example, online counselling does not work for everyone). In cases of hybrid learning, some online learners felt that they were forgotten, and did not participate in classes in the same way as learners who were attending in person. Learners emphasised that attendance is not the same as engagement, and that this was sometimes particularly evident during online classes, as learners felt that they did not talk enough to their peers or have the opportunity to work collaboratively. Learners expressed concerns that online learning can hinder peer support and is often not as engaging as in-person learning.

Learners identified that the risks of exclusively online learning include a lack of a sense of belonging as well as a lack of focus when studying online, and a lack of support, all of which heightened the risk of withdrawal and therefore possible negative impact on retention. Learners suggested that on campus/in-person classes should be used to build community, encouraging peer-to-peer collaboration, learner projects and groups, while more information-based lessons can be delivered online.

Organisation

In a few institutions, learners reported that timetabling of online classes changed from week to week, which made it difficult to plan their personal and work commitments. Learners would prefer online classes to follow a fixed timetable. Learners also suggested that timetabling could be better arranged so they can travel to campus only once a week and have all their in-person classes in one day, rather than travelling multiple days. They suggested that it was often not worth it to travel to campus to attend a single class. Moreover, reducing the number of days learners travel to campus meant that they could save money on travel.

Technical issues could also hinder learning: for example, online platforms and tools could be unintuitive, broadband unreliable, links outdated, technical support slow, and teaching staff difficult to reach to get access to materials. It is clear that digital poverty also remains an issue.

Flexibility

Online learning allows students to be more flexible and accommodate for their personal commitments, whether these be caring responsibilities or work; there is a wide range of digital resources and material, and they are easily accessible online, so learners can catchup in their own time. Attending classes online also means that learners are not spending money to travel to campus, which can have a big impact on their finances, especially

considering the current cost-of-living crisis. These findings are consistent with those from HM Inspectors engaging with Scottish colleges during 2021-22, who additionally praised the use of simulation software within vocational specialism, facilities to submit assessments electronically, and the ability to receive instant feedback on their work from staff.⁹

However, learners reported that despite the fact institutions advertise courses as delivered in hybrid or blended mode, learners did not always have a choice in how their course is delivered. They expressed a desire to be able to choose their preferred learning mode. Rather than focusing the enhancement topic on 'digital and blended learning', they argued that there should be more discussion about personalisation and flexibility of learning, so each learner can choose the mode that suit them best.

Learners also argued that a return to in-person learning should not be at the expense of the positive aspects that have emerged from online learning: if a learner cannot attend a class on campus for some reason, they should have the opportunity to catch up with it online, rather than missing a class.

Consistency of the learning experience

Learners commented on the lack of consistency from lecturers about resources, as not every lecturer uploads materials online or records classes. There is also inconsistency of delivery, as this can be dependent on how the skills and confidence of individual lecturers. Learners therefore advocate for better staff upskilling and support so that they can plan and deliver engaging online classes. Learners increasingly expect this to be a core competency of teaching staff.

As noted above, learners also have the perception that if someone is learning online, they do not have the same learning experience as learners who are learning on campus, in terms of academic support, peer support, or learner services support.

Accessibility

Related to flexibility, online learning can be more beneficial for certain learner cohorts, such as disabled learners, learners with commitments and caring responsibilities, and commuters. However, in more than a few institutions learners are required to use up to four different platforms, which can be confusing.

Communication and expectations

Sabbatical officers and students' associations were consulted as part of steering groups working with senior management on the post-pandemic offer, and most institutions ran surveys to consult learners on whether they preferred studying online or in-person. The results were often split nearly 50/50, indicating that learners clearly preferred having the choice of where and how to study. Learners were not really consulted on which programmes would move back to in-person delivery and which would stay online, and there was no real

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⁹ education.gov.scot/media/tiggxfip/hmie-engagement-in-scotlands-colleges.pdf

debate in classrooms about whether to return on campus. Programme structure was not always clear when learners signed up for their course, as there was still confusion about terms such as blended and hybrid learning. While the difficulties of agreeing on definitions have been well-rehearsed there would no doubt be benefit in each institution having clear definitions and communications around key terms, as learners do not always feel that what is on offer matches what they have been told they can expect.

Learners who had never experienced in-person exams found it hard to know how to behave and how to handle anxiety. They felt that there was not enough information and support about the move to in-person exams and often could not understand why open book exams were not always an option, as they resembled 'real life' conditions. Closed book exams require a different set of skills (such as memorizing large portion of information), and learners felt that this was not always clearly communicated, or support offered to develop the requisite skills.

In more than a few instances, pre-recorded material and classes gave learners the feeling these have not been updated and learners feel they were not getting the best experience as lecturers were recycling materials. Learners also reported that they felt lecturers expected all learners to know how to behave on campus, while some of them have never been on campus before and are anxious about the experience.

There are several best practice examples where learners feel they were kept informed about all changes to their courses and that communication was clear.

Key similarities between colleges and HEIs

The research team was tasked with identifying commonalities and differences between the different parts of the sector. We in fact found that there were no significant differences between colleges and HEIs, but the evidence does point to a number of similarities, which are outlined below.

General points

Recognition that digital provision is part of the learning environment, as reflected in institution strategic commitments. There is a recognition that digital provision is part of the learning landscape, be it in face-to-face, online or hybrid learning spaces. This is reflected in regional and institutions' learning and teaching strategies, digital learning strategies, values, and standards. In almost all institutions, digital has become a core part of the student experience, enhancing learners' experiences of onsite and offsite provision and providing rich and innovative blended learning.

Digital poverty is recognised, and steps are being taken to address it. All learners need access to the correct hardware, software and connectivity; this is seen as essential. However, institutions realise that not all learners have reliable access and have developed schemes to address this.

Blended

Promotion of learner digital literacies. There is an assumption that, in most cases, learners will start their studies with the requisite IT skills for learning. However, sometimes this is not the case. One potential explanation for this is that social media skills are not the same as skills and abilities needed to flourish in blended learning environments. Consequently, support staff, such as, learning technologists are required to support students in digital learning spaces. This promotion is linked to institutions' belief that learners need opportunities in which they can develop digital skills and capabilities.

Increasing use of online resources. Even when delivery is synchronous and face-to-face, there is a general move to increased online resources, such as e-books and recorded lectures.

Increasing use of digital in communications and interactions with learners. From enrolment to induction to learner support from professional services, such as referral to mental health online, digital is now an increasing part of communications between learners and institutions. Whilst this has significant benefits, such as accessibility, it also has challenges with some learners having unrealistic response expectations, for example, quick responses to queries at midnight on a Sunday.

Online

Limited, targeted implementation of fully online, distance learning. A few colleges and universities have fully online, distance learning programmes with no campus attendance. Usually, these initiatives are chosen because there is a particular requirement or a specific gap in the market has been identified.

Face-to-face

The importance of accessibility, inclusivity and well-being. As learners have returned to campus, there has been a raised awareness of the importance of accessibility and inclusivity, ensuring that all offerings, regardless of the mode can reach out to all learners, wherever possible. Digital is being harnessed to signpost and support learners.

Social learning through active and peer learning. Part of the move to blended learning has been an increased emphasis on social learning through active learning especially peer learning. This has seen a rise of digital implementation in synchronous face-to-face learning environments as well as augmenting asynchronous, independent learning.

Promotion of learners' sense of belonging to encourage learner engagement.Learners' sense of belonging, widely accepted to be linked to attainment and reduced attrition, is a key focus for institutions and a renewed focus on learner engagement in all modes is hoped to increase learners' sense of belonging.

Review of physical estate. Changes in the way that education is offered, incorporating digital, has led almost all institutions to review their physical estates and re-evaluate how space is used efficiently and how digital technologies can be incorporated effectively to

enhance the learning environments available.

Staff development is addressing digital capabilities and pedagogical understandings of digital enhanced learning spaces. There is a general acceptance, reflected in organisations' strategies, that educators need on-going support in developing their digital capabilities including both improving technical skills but moreover their understandings of pedagogical developments to provide rich, digitally enhanced learning spaces for their learners. Frameworks are particularly helpful in guiding educators.

Hybrid

Limited trials of hybrid. There is confusion regarding the term 'hybrid' as is used in this report. Quite a few institutions refer to hybrid when they are actually describing 'blended learning'. Colleges and universities have trialled 'hybrid' for increased flexibility and accessibility for some learners and in response to some circumstances. There have been varying degrees of success with this approach.

Findings from face-to-face event

On 20 September 2023 we brought together staff and learners from across Scotland's colleges and HEIs for a face-to-face event entitled *The future of learning and teaching: Planning and delivery of digitally enhanced blended learning.* This attracted 12 individuals from colleges, 44 from HEIs, and a further 16 from other organisations including sector agencies and (in one case) a private company in the education sector. The below summarises our findings from three separate activities conducted on the day.

Feedback on initial findings

In plenary, we presented our initial findings (as detailed in the conclusion below) and invited comments from delegates. While we received no direct challenges to our findings, delegates commented on the challenges of making time to plan and deliver high-quality blended learning.

Tabletop exercise

We asked delegates to work in small groups to discuss what was best for learning in blended and hybrid contexts, and how they try to get the blend right.

Blended learning

From the learner perspective, there was a strong emphasis upon the changing needs of learners and issues such as equitable access to technology, Wi-Fi and data, particularly for students from disadvantaged backgrounds. It was felt that learners needed opportunities throughout their levels of study for skills development, including digital literacy, to enable them to flourish in self-directed, digital learning environments and to become independent lifelong learners (essential for employability). There was also a recognition that students may have, and may wish to have, varying degrees of engagement with digital resources and face-to-face classes, and that this may be related to previous experiences (including learning

during the pandemic). Learners need guidance about different modes, including at preapplication, as desire for flexibility may not always be appropriate for their individual learning journeys. Nevertheless, flexibility of mode may overcome barriers and increase accessibility accommodating student lifestyles and learning preferences.

Experimentation and iterative development are essential in finding the right blend of online and face-to-face elements in educational programmes, especially for international delivery. The online and face-to-face components of blended learning need to be aligned, encouraging active learning, supporting the intended learning outcomes and encouraging community-building. Consistent, structured design should be student-centred, starting from the learner, and standardised (perhaps using templates) informed by long-term institutional strategies (blended, digital and assessment) although best practices may vary depending on the specific context of learners and circumstances. The value of face-to-face teaching (although this may not be lectures) for certain skills and activities should be recognised and promoted, as well as the impact of mode on student mental health. Students could also be involved in the creation and chunking of digital resources (for example, short videos) to complement face-to-face teaching. The use of effective communication mechanisms is crucial for educators to support learners and ensure engagement.

Collaboration between educators and students is critical for designing effective, personalised blended learning experiences, recognising that the blend needs to be dynamic and responsive to evolving student needs and feedback. Partnership through student-staff discussions helps identify learners' needs, challenges and preferences which can inform the blend. Continuous feedback from students, including those who are harder to reach, is essential to refine and improve the blended learning approach. Data analytics may inform decisions about course design, student progress, and support, but requires staff development. Varied formative assessments including TikTok videos and presentations may help learners understand their progress.

In conclusion, themes related to learners primarily focused on their needs, experiences, and wellbeing, whilst themes related to educators primarily focussed on their role in designing, delivering, and supporting blended learning experiences. Providing time for training and development (including understandings about the plethora of tools) to educators to enhance their digital skills, competence and confidence was thought to be fundamental calling upon universal learning design approaches: we must not apply old ways of thinking to new technologies. Investing in support for educators through learning technologists or equivalent, and in the digital estate including timetabling and the VLE, is also considered to be essential, along with further investigation into the impact of blended provision on learner outcomes (accepting that it is difficult to develop a baseline across the sector).

Hybrid learning

Effective hybrid provision requires substantial resources including well-trained educators, suitable physical spaces with the right technical equipment (especially microphones), and robust on-going support systems for both face-to-face and online learners and educators. It is not a cheap approach, with two facilitators often required (one online and one face-to-face) per session. Furthermore, it requires cultural change which encourages and applauds a culture of experimentation and adaptation.

From the educator perspective, hybrid provision often requires pedagogical adaption with a highly structured course design ensuring clarity and effectiveness. Implementing hybrid learning can be complex, requiring different lesson plans and strategies for in-person and online learners simultaneously. There should be a clear understanding of why hybrid provision is being used, its value, with defined educational goals and objectives guiding its implementation. Hybrid provision may be more suitable for some programmes than others, and its effectiveness can vary depending on factors like class size and study level. Educators need protected time for skills development and support to develop confidence in their hybrid teaching approach. Cross-organisational networks can share good practice.

Maintaining a sense of belonging for students in different modes is important for their overall experience. Promoting interactivity and engagement within specific groups (online with online, face-to-face with face-to-face) can enhance the learning experience and promote a sense of community in hybrid spaces. Managing group work and collaborative activities in a hybrid environment can be challenging and requires careful planning and class management. Effective hybrid provision should prioritize and facilitate meaningful student engagement and interactions, both in-person and online, to promote active learning and collaboration. Ensuring equity of experience is crucial in hybrid provision, as all students should have equal access to educational opportunities and resources, regardless of their location or circumstances.

In terms of the learner perspective, providing students with the choice of attendance mode (hybrid or fully online) can enhance their learning experiences by allowing them to decide what works best for them and increases learner agency. Hybrid provision can be beneficial in supporting international students with additional needs, such as providing subtitles for better accessibility.

In conclusion, these themes highlight the multifaceted nature of hybrid learning, the importance of resource allocation, digital literacy and the need for thoughtful planning and support to create an effective and equitable learning experience for all students. Whilst undoubtedly having the potential to mix geographically dispersed and campus learners, issues of ensuring meaningful student engagement and developing educator confidence are recurring themes, emphasizing their central roles in hybrid provision success. Hybrid was often implemented as an emergency fix during the pandemic, but more work is needed to evidence its purpose, value and impact. A few institutions have opted not to progress hybrid provision currently and are seeking to explore alternative timetabling approaches for face-to-face provision.

Online (Menti) poll

We asked delegates to complete the sentence 'In one year's time, we will...'. The aim of this exercise was to crowdsource an outcome towards which the sector could work in session 2023-24.

Three broad themes emerged from our analysis of the responses to this poll. There is a strong desire for clarity about the definitions that we use across the sector to describe the different modes of provision. There is also a strong desire for skills development to ensure

that staff are equipped to design and deliver a high-quality blended learning experience. Overlapping these themes is a desire for greater *understanding* of the different modes of provision.

Based on this analysis, were we to complete the sentence with blended learning in mind, it might read: 'In one year's time, we will have a common definition of blended learning, a shared understanding of what high-quality blended learning looks like, and the skills to deliver it.'

Conclusions

Our key findings are as follows:

- 1. Our focus should be on getting the blend right. The term 'digital' describes something that is business as usual, and this is already reflected in institutions' strategic commitments and the way we communicate with learners. Active blended learning is becoming the norm and 'digital' is a tool for delivering this.
- 2. **All provision should be accessible and inclusive.** There are specific challenges relating to this in terms of blended provision, such as digital poverty, which is widely recognised and is being addressed.
- 3. **Learners' sense of belonging is key** to encouraging their engagement regardless of mode, and active and peer learning are essential to promote and sustain this.
- 4. Learners struggle when terminology is used in a way that is unclear or inconsistent. It is important that all staff and learners are given clear information about what 'blended' means within their institution.
- 5. The ongoing promotion of digital literacies is vital for staff and learners. Staff development must include a focus on pedagogical understandings of digitally enhanced learning spaces rather than focusing on how to use different technologies.
- 6. There is tension between institutional estates and learning and teaching, both in terms of current delivery (for example, in scheduling) and future development (ensuring that learning spaces are aligned with learning and teaching strategies).

Our conclusion is that institutions need to build in time, and to have a particular strategy, for designing and delivering high quality active blended learning.

This research has gone some way to addressing our four lines of enquiry:

- A. What do institutions state they are offering?
- B. What do learners want?
- C. What are learners experiencing?
- D. What does the evidence suggest is best for learning?

In terms of what institutions state they are offering (A), our desk-based research (in particular, the examination of learning and teaching strategies) and interviews suggests that there is a general move towards active blended learning as the default mode. This also appears to align with what learners want (B), as blended learning promises a degree of flexibility that would not necessarily be available with either fully online or fully face-to-face provision (or, at least, that is the expectation). We have also gained some insight into what learners are experiencing, with inconsistency (whether actual or perceived) of the quality of provision emerging as a possible area of concern. There is still more to learn about learners' experiences (C) and what the evidence suggests is best for learning (D). While we do not propose to undertake any further research in the remainder of 2023-24, we believe that our findings are sufficiently sound to proceed with a programme of jointly delivered enhancement activity as outlined below.

Proposed activity in remainder of session 2023-24

We recommend that the priority for the remainder of session 2023-24 be **designing and delivering active blended learning to improve learner outcomes in a tertiary landscape.** To this end, the project Steering Group proposes to progress the following workstreams:

- 1. A set of definitions of key terms.
- 2. An online resource hub bringing together current scholarship and practical case studies. This will be hosted on the QAA Scotland website but will be co-authored by the partner agencies and be aimed at a tertiary audience.
- 3. A staff development programme aimed at programme teams, focused on curriculum development for active blended learning, and that uses Jisc's Digital Capability Framework as a key point of reference. This will involve a mix of face-to-face and online events and will take place between March and May 2024.
- 4. A resource aimed at learners transitioning into tertiary education.

Workstreams 1-3 directly address the three themes that emerged in our Menti poll on 20 September, aiming to provide clear definitions for common terms, examples of good practice in order to strengthen understanding, and skills development opportunities in order to support design and delivery. Additionally, Workstream 2 will address line of enquiry D, exploring what the evidence suggests is best for learning across different modes. Workstream 4 has yet to be fully developed but addresses a sector-wide concern about the preparedness of new students for learning in online or blended environments.