



BTEC Nationals in Health and Social Care

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In 2013, we were the first company to make a commitment to measure our impact on some of the outcomes that matter most to learners, such as academic achievement. But there was no rule book and no model to follow. We've had to carve our own path to define what efficacy looks like in education.

While our approach is rigorous, the concept underlying it is simple: we use evidence and research to design products and solutions to help learners achieve the outcomes that matter to them. Then, we measure the impact of using our products, report that impact in a transparent way, and use what we learn to help learners – and ourselves – continuously improve.

Today, we are taking what we have learned and evolving our approach. We are focusing more on designing products to have a measurable impact, not just during education, but on employability and lifelong learning as well.

We want our commitment to efficacy to be a reason for learners to believe in Pearson, to see us as their trusted guide to lifelong learning, as they navigate a changing world of work. Skills that are hard to automate, like communication and critical thinking, are in more demand than ever. And now that the idea of a job for life is gone, people need to continuously grow, demonstrate their skills and adapt their talent.

People need a lifetime of learning and so we must refocus and redesign learning. The way we learn needs to support the development of the key skills people need to thrive today and in the future.



Efficacy in 2020

This report is part of our ongoing commitment to report our impact in a transparent way. This is the first of our efficacy reports to feature a BTEC qualification. We chose the BTEC Nationals in Health and Social Care as the subject of this report because they support progression into an employment sector that currently reports high volumes of hard-to-fill vacancies, as well as skills gaps among the current workforce. These circumstances mean it is important to examine the extent to which these qualifications are meeting their stated aims regarding learner progression and preparedness for careers. See Annexe A for more details about efficacy reporting at Pearson.

We are pioneering the application of efficacy in education. As such, we will keep on redefining the limits of what learners can expect from learning experiences – guiding learners through a lifetime of learning and, in doing so, building public trust in the business of learning.

Our commitment to efficacy is on-going and all our 2020 efficacy reports are available from [our website](#).



About BTEC Nationals

BTEC Nationals are specialist career-focused qualifications offered mainly in secondary schools, sixth form colleges and further education (FE) colleges. They offer a route into employment or higher education, giving them a unique position in England’s education system. Figure 1 illustrates some of the options available to students and the progression these different options offer.

BTEC Nationals are Level 3 qualifications, equivalent to A levels or European Qualification Framework Level 4. Most qualifications at this level are either academic, focusing on progression into higher education, or vocational, focusing on progression into employment. BTEC Nationals support both forms of progression, offering learners a degree of choice they would not have with a different qualification. Similarly, while other vocational qualifications focus narrowly on progression into a particular occupational context, BTEC Nationals give learners much more choice over where in their sector to focus and specialise.

As regulated Level 3 qualifications, BTEC Nationals have to meet criteria set by Ofqual concerning their rigour and fitness for purpose. Many BTECs also conform to criteria set by the Department for Education (DfE) for qualifications appearing on UK performance measure tables.



About BTEC Nationals

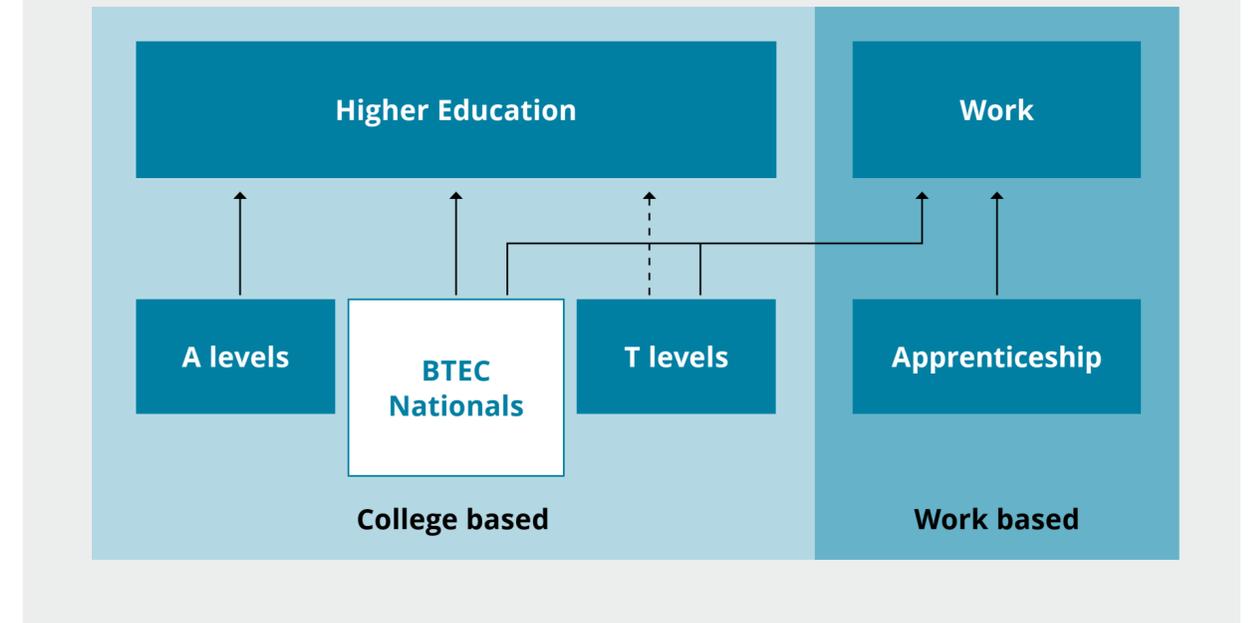
As regulated Level 3 qualifications, BTEC Nationals have to meet criteria set by Ofqual concerning their rigour and fitness for purpose. Many BTECs also conform to criteria set by the Department for Education (DfE) for qualifications appearing on UK performance measure tables.

BTEC Nationals are part of the BTEC family of qualifications, alongside BTEC Firsts and BTEC Apprenticeships. BTEC qualifications have their origins in the UK and are now offered worldwide. Combining practical and subject learning to develop learners' skills and knowledge, they provide a route into work and higher education for around 300,000 learners each year in the UK.

BTEC National qualifications cover 16 employment sectors. They are available in a range of sizes, to make sure learners have flexible access to the curriculum that is right for them. Each BTEC curriculum maintains a clear line of sight to work in the relevant sector, without narrowing down learners' opportunities to specific roles or levels in that sector.

Internationally, over 260 universities recognise BTEC Nationals for admission to undergraduate study, including those within the USA, Canada, Australia, New Zealand and United Arab Emirates.

Figure 1: Primary progression aims for Level 3 qualifications



Student progression takes many forms, and the paths shown in Figure 1 are not the only possibilities. For example, while the primary aim of A levels is to prepare students for higher education, some students move from A levels straight into work.





This report

This report draws on a range of research that has taken place over the past six years, since the inception of the current Regulated Qualifications Framework (RQF) BTEC National qualifications. The data and analyses selected for inclusion in this paper represent a broad cross section of the work undertaken to measure the impact of these qualifications; it does not claim to represent all research carried out, but specifically aims to shine a light on the emerging evidence of the impact of BTEC qualifications.

Special thanks

We want to thank all the customers, test-takers, research institutions and organisations we have collaborated with to date.

If you are interested in partnering with us on future efficacy research, have feedback or suggestions for how we can improve, or want to discuss your approach to using or researching our assessments.

Kate Edwards, PhD

SVP Efficacy & Learning

Pearson



Executive summary

Since the initial development of the BTEC Nationals in Health and Social Care, the evidence has been strong that these qualifications are fulfilling their purpose: to help learners get ready for their choice of role in the health and social care sector.

Before they were made available for first teaching, representatives of relevant employers and higher education providers reviewed the draft qualifications and confirmed that they would prepare learners both for employment and for further study at undergraduate level. You can find examples of the different journeys real learners have taken in the product guide for these qualifications.

The support and preparation offered by the qualifications gives learners confidence. In 2019, 76% of learners taking the BTEC Nationals in Health and Social Care said they felt confident about their future, and 73% agreed that the qualifications would help them pursue a career in the field (BTEC Teacher and Learner Survey 2019, unpublished).

And that confidence is well founded. Nearly 1 in 5 candidates accepted by nursing degree programmes in 2017 had taken the BTEC Nationals in Health and Social Care, putting the qualifications on par with A levels as a route into these programmes (UCAS and HESA).

The evidence also demonstrates that the qualifications not only support progression, but also offer choice. In 2019, 92% of learners taking the qualifications agreed or strongly agreed that they enable them to keep their career options open for the future (BTEC Teacher and Learner Survey 2019, unpublished).

Learners taking the BTEC Nationals in Health and Social Care can tailor their study to fit their own plans. As BTEC Nationals are modular learners can select optional areas of study, and can build up from a small to a larger sized qualification as their career goals evolve. They can seek employment directly after achieving the qualification, or use it as a stepping stone into relevant higher education. They can specialise in many areas of health and social care, including healthcare assistant roles, allied health professions (such as radiography and occupational therapy), and nursing. For more about how learners and educators can use the qualifications in different ways according to their needs, see the accompanying product guide.





About the BTEC Nationals in Health and Social Care



About the BTEC Nationals in Health and Social Care

The BTEC Nationals in Health and Social Care are a suite of six related BTEC National qualifications, with the common aim of helping learners become ready to take up employment in the health and social care sector in a range of different disciplines or specialist areas. Table 1 gives details of the six individual qualifications.

Like all BTEC qualifications, the BTEC Nationals in Health and Social Care are composed of units, some mandatory, some optional. By selecting unit combinations, learners can exercise a great deal of choice over their route into employment in the sector. From the BTEC, they could progress directly into employment in areas like care work or community support, or via higher education into employment in areas like nursing and social work.

The five BTEC Nationals nest inside each other, so for instance, the three mandatory units of the Extended Certificate include the two mandatory units of the Certificate. This gives learners the flexibility to progress from one qualification to the next by adding more units. Learners might want to do this if their needs or chosen destination change, or if they show aptitude beyond the qualification they initially chose.

Each qualification includes a combination of units assessed by Pearson and units assessed by the teacher and quality assured by Pearson.

Table 1: Details of the six individual BTEC Nationals in Health and Social Care

Qualification	Equivalent in size to	Structure
BTEC National Certificate in Health and Social Care	0.5 A levels	2 mandatory units
BTEC National Extended Certificate in Health and Social Care	1 A level	3 mandatory units 1 optional unit
BTEC National Foundation Diploma in Health and Social Care	1.5 A levels	4 mandatory units 2 optional units
BTEC National Diploma in Health and Social Care	2 A levels	6 mandatory units 2 optional units
BTEC National Extended Diploma in Health and Social Care	3 A levels	8 mandatory units 5 optional units
BTEC National Extended Diploma in Health and Social Care (Health Studies)	3 A levels	8 mandatory units 5 optional units

How the BTEC Nationals in Health and Social Care are assessed

The BTEC Nationals in Health and Social Care are made up of three different types of units:

1. **Mandatory externally assessed units**
2. **Mandatory internally assessed units**
3. **Optional internally assessed units**

Table 2 shows how these different types of units fit together in each of the five sizes of qualification.

The external assessments are set and marked by Pearson, and learners must take them at set times. The internal assessments are designed, administered and assessed by the schools and colleges, using criteria included in the qualifications.

BTEC National assessments use a grade set of up to 10 grades, from P (Pass) to D* (Distinction*). The specific qualification chosen determines the range of grades that can be awarded. For example, the largest qualification, the Extended Diploma, carries triple grades from PPP to D*D*D*. The process for accumulating qualification grades from the outcomes in each of the internal and external components is clearly set out in the specification.

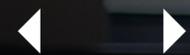
The type of assessment for each unit was chosen by careful consideration of the content in the unit. Content for external assessment was chosen because it is demonstrated by cognitive skills such as knowledge and understanding. This type of content lends itself to being assessed by tests.

For internally-assessed units, the content often has more of a skills focus. This ensures that learners demonstrate the practical skills that they will need as they progress. It also means that schools and colleges can tailor assignments to engage and challenge their learners, bringing in situations and contexts that are relevant and interesting to their local context.

Table 2: Composition of units in the BTEC Nationals in Health and Social Care

Qualification		Certificate	Extended Certificate	Foundation Diploma	Diploma	Extended Diploma
Mandatory units	Externally assessed units	1	2	2	3	4
	Internally assessed units	1	1	2	3	4
Optional units	Internally assessed units	0	1	2	2	5
Total units		2	4	6	8	13

Methodology



This report represents several separate pieces of research and analyses which have been carried out over time. As such, there is no single methodological approach. Data used in this report has been taken from the following studies or processes, at the pre- and post-launch stages of the qualifications.

A range of stakeholder evidence contributed to the design of the BTEC Nationals in Health and Social Care. The design for these qualifications commenced in 2014 and was completed in 2016, ready for first teaching in September 2016. The processes for capturing and using this data included the following.

World Class Expert Panel

Each of the qualifications in the Health and Social Care family was developed in line with the principles of [Pearson's World Class Qualifications \(WCQ\) programme](#). This programme was initially designed by Pearson for reformed general qualifications in England and subsequently adopted for BTEC Nationals. Whilst BTEC Nationals are considerably different in purpose and structure to GCSE and A Level, they share the overriding aim of the WCQ programme to 'assure progression to a fulfilling worthwhile next step'. Figure 2 sets out the key pillars of the WCQ programme.

Final approval for the design of BTEC Nationals came from a [panel of international experts](#) on curriculum, assessment design, learning technologies and education policy. An expert in technical and vocational education, Dr Ursula Renold, undertook the final detailed review of the suite design and produced a final report in 2015, analysing the adherence of the BTEC Nationals to the WCQ Principles in all aspects of their design, development and operation.

Figure 2: Pearson's design principles for World Class Qualifications

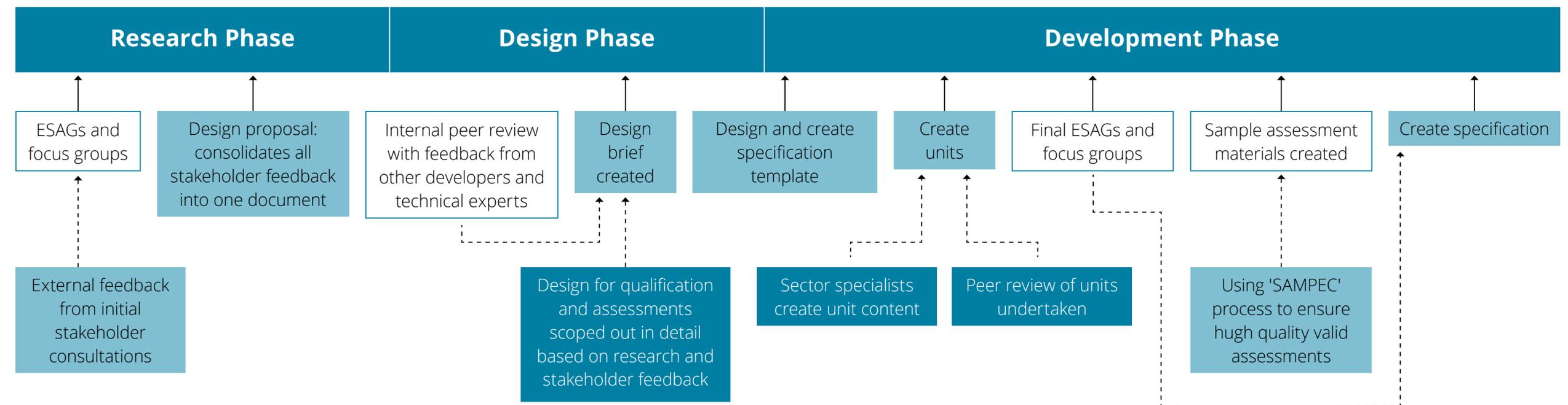


Methodology

BTEC National design and development process

In addition to the WCQ programme, at the sector/subject level, the BTEC Nationals were developed according to a process designed specifically to capture and use stakeholder views at all stages of the process. Figure 3 shows a simplified version of this, indicating when external parties provided input during the development process.

Figure 3: Qualification development process for BTEC Nationals



Methodology

External Stakeholder Advisory Groups

To ensure close correlation between the design of the qualifications and the needs of stakeholders, External Stakeholder Advisory Groups (ESAG) were established for each sector. These groups comprised representatives from higher education institutions (HEIs) and employers, both of which are considered the ‘end users’ of these qualifications.

The ESAGs are separate from other customer consultation groups, comprising schools and colleges, which took place alongside this process and sought to capture the views of the teachers and institutions responsible for delivering the qualifications.

Central to the purpose of the ESAG groups was the principle that qualifications must meet the needs of employers and HEIs, in terms of enabling learners to access career pathways – either directly into work or via higher education.

The ESAGs comprised three main stages:

1. Review of existing (legacy) specification/suggestions for content for new qualifications
2. Mid-point review of content and assessment approach
3. Final review and sign off of the qualification by the panel

Feedback from the ESAG process fed into the development as shown in Figure 2, determining key decisions such as the focus of the content, the structure of mandatory and optional units, pathways and assessment approaches.

Online community insights

After two full years of delivery of the RQF qualifications, Pearson commissioned independent qualitative research into Health and Social Care teachers’ views of proposed qualification reforms, based on their experiences of delivering the BTEC Nationals in Health and Social Care. Sixteen Health and Social Care teachers were recruited and took part in a week-long online community in May 2019. Seven were teaching at FE Colleges, four at 6th Forms and five at schools. Their job roles were predominantly Curriculum Lead, Head of Curriculum, Curriculum Manager and Head of Department. Three were operating across a cluster of colleges.

The participants responded to a daily set of questions that progressively found out about their current role and learner types, and revealed information about the future of the BTEC Nationals in Health and Social Care within the context of plans for qualification reforms.

Participants provided 257 individual responses to the questions posed and spent a total of 46 hours online interacting with the research process. Some of this data has been used in this report to underpin findings from other sources about perceptions of these qualifications.

Methodology

BTEC Teacher and Learner Survey

In 2018 and 2019 Pearson commissioned London Economics to administer a round of online surveys to BTEC National teachers and learners in England. These surveys focused on the Extended Diplomas (equivalent to three A Levels) and the Extended Certificates (equivalent to one A Level). The core aim of these surveys was to understand factors impacting access to BTEC Nationals, learners' experience and learners' progression paths, so all available sectors were included in the sample.

These surveys represent the first two years of a three-year survey cycle (planned to resume in 2021 following interruption by COVID-19). In this report, data is mainly drawn from the 2019 survey, because it is the most recent; where 2018 data is used, this has been explicitly identified in the text.

The survey looks at BTEC National learners across all subjects, but we are able to extrapolate responses for Health and Social Care learners and compare them to the whole BTEC learner population. In 2018 the total responses for all BTEC subjects numbered 2,725 and 4,637 for teachers and learners respectively, and 1,225 and 2,228 in the following year.

Progression data

Learners progress from BTEC National qualifications into the workplace, either directly or by further training and education routes such as BTEC Higher Nationals or degrees. In this report we have highlighted nursing as this is a popular career pathway for learners taking these qualifications. Data from UCAS and HESA is regularly analysed to track the destinations of BTEC learners progressing into higher education. In this report we have used this data to establish the impact of the BTEC Nationals on the volume of candidates commencing nursing degrees.

Nursing was selected for this case study because it is identified as a key occupational area for shortage, with a projected one third of current nursing staff due to retire by 2026 (Marangozov, 2020), projected impacts of Brexit on NHS staffing, and recent changes to student funding for nursing degrees. These latter changes saw the scrapping of bursaries completely in 2016. These were later replaced by grants from 2020, although these are worth approximately half as much as the bursaries.





Findings and analysis



Findings and analysis

Qualification purpose

Central to the design of the BTEC Nationals in Health and Social Care is the defined purpose of each qualification. UK regulated qualifications must align to an agreed purpose which is intrinsic to, and should inform design, mode of delivery and how the qualification enables learners to progress to the next stage of their career journey.

This purpose has been moulded by published guidance (DfE, 2015), applying to all qualifications for 16-19 year olds in England (that appear on performance tables), with the purpose itself created by Pearson on the basis of stakeholder and customer research. Each of these two elements of the purpose are unpacked in this section.

Applied General qualifications

All Level 3 qualifications submitted for recognition on 16-19 performance tables in England must have a clear stated purpose determined by qualification type (A Level, Applied General or Tech Level).

As Applied General qualifications, BTEC Nationals in Health and Social Care are defined by the DfE as ‘rigorous’ qualifications that allow students to ‘develop transferable knowledge and skills’. They are designed for students wishing to continue their education through an ‘applied learning’ route. All qualifications falling into this category focus on enabling entry to a ‘range of higher education courses’, either by meeting the entry requirements in their own right or by being accepted alongside and adding value to other qualifications such as A levels.

BTEC Nationals in Health and Social Care were successfully submitted for inclusion on the list of Applied General qualifications and, as such, were deemed to meet this definition, following a review by the DfE.



Purpose of the BTEC Nationals in Health and Social Care

Whilst the Applied General category signals the broad purpose of the qualification, each BTEC National specification sets out the specific aims of that particular qualification. The specification is designed to be read and understood by teachers and assessors as well as learners, parents and other stakeholders. This is intended to support clarity about who the qualification is for and what progression pathways it enables.

The following paragraphs contain a precis of the stated purpose for the BTEC National Extended Diploma in Health and Social Care from the specification. Note that the purpose of each of the qualifications in the Health and Social Care family differs. In this summary the Extended Diploma is used because it is the largest qualification in the suite; it is specifically designed to enable entry into higher education, in order to gain a degree or a higher national qualification, supporting graduate careers in the sector.

The qualification is for post-16 students wishing to continue their education through applied learning and who aim to progress to higher education, and probably to employment in the health and social care sector. Developing a deep common core of knowledge, understanding and skills in the sector through mandatory content, this qualification is designed to enable students to focus on a particular aspect of the sector through a selection of option units, including a route that focuses specifically on health studies.

Because the qualification is the main focus of a two-year study programme of learning and is equivalent to 3 A levels, students will be fully prepared for a range of health and social care degree programmes. In addition to sector specific content, the requirements of the qualification allow students to develop the transferable and higher order skills that are highly regarded by both HE

and employers. For example, the study of contemporary issues in health and social care requires students to research and provide additional evidence to support an argument set out in technical journals. This activity requires the application of the higher order skills of secondary research, evaluation and analysis. The qualification carries UCAS points (enabling access to HE) and is recognised by HE providers as meeting admission requirements for many relevant courses, for example a BSc (Hons) in Nursing.

As a basis on which we can measure the impact of the qualification for learners, we can use this purpose as a baseline for expectations of outcomes for learner progression.

Learner outcomes and indicators

In order to support claims that the BTEC National qualifications would meet their stated purpose, at the time of development, the following Statements of Intent (referred to in [Pearson's Efficacy Reporting Framework](#) as learner outcomes) were established in line with the expectations of end-users of the qualifications. These fell into three categories taken from the Pearson Efficacy Reporting Framework:



To evaluate the extent to which the qualifications deliver against these intentions, we have also developed a series of evaluation questions. These provide the focus for all research into the impact of these qualifications. At this stage of the impact analysis, the evidence presented in this report supports some evaluation questions in the access and experience category and the progression category (these are denoted with*). Evidence is still being gathered in relation to the other questions.

Table 3: Statements of intent and evaluation questions for the BTEC Nationals in Health and Social Care

Statements of intent	Indicators	Evaluation questions
These qualifications are designed to...	There is evidence that this is met when...	To evaluate the qualifications, we can ask...
Access and experience		
Enable learners' access	Learners have equity and access for all, as intended in the product design	Do teachers understand the purpose of the qualifications?*
Contribute to and sustain learners' motivation	Learners have a positive learning experience Learners learn, and are assessed, at the appropriate standard	Are the qualifications used for their stated purposes?*
		Are learners recruited appropriately for the qualifications?
		Do learners understand the purpose of the qualifications?*
		Do learners think the qualifications will get them where they want/need to go?*
		Do the qualifications contribute to learners' confidence about the future?*

Table 3 cont: Statements of intent and evaluation questions for the BTEC Nationals in Health and Social Care

Statements of intent	Indicators	Evaluation questions
These qualifications are designed to...	There is evidence that this is met when...	To evaluate the qualifications, we can ask...
Standard of achievement		
Enable learners to achieve and demonstrate knowledge and skills	Learners achieve the qualification Learners take assessments that demonstrate the qualities of validity, reliability and fairness	Do the unit assessment outcomes reflect learners' achievements? Do learners get the grades they deserve?
Progression		
Learners progress to relevant routes	Learners progress to employment or an apprenticeship Learners progress to related training and/or higher study	Do learners feel prepared for progression?* Do learners feel positive about their future?*
Learners' progression supports social mobility	Learners make progress that supports wider social mobility	Do learners feel they have choice?* Do learners think the qualifications will get them where they want/need to go?

Findings and analysis

Assessing learner outcomes and regulated qualifications

One limitation of using an efficacy framework based on learner outcomes to measure the effectiveness of any product is that, to some extent, the influences on learner access, experience and achievement extend far beyond the product itself. There is generally some limitation of the extent to which you can control for them (owing to ethics and practical limitations).

For regulated qualifications, probably what influences learner outcomes most is external to the qualification design. A learner's experience of the BTEC Nationals in Health and Social Care is impacted by the institution they attend, the resources they access and, most importantly, the quality of the teaching and learning they experience. Similarly, how a learner accesses a qualification may be determined by geographical factors (such as what's on offer in the local area), funding policies and practices of the institution.

Even more problematic is the measurement of achievement and progression. Whilst one might be able to show that a single text book, used to teach a class where 100% of pupils passed their exam, is performing well, most UK regulated qualifications are designed with an assumption that achievement will be spread over a range and, in some cases, students will not pass at all. Higher education providers rely on an output of achievement across the spectrum so that they can rank learners and make university offers accordingly. A qualification where all learners gained top marks may lose value amongst stakeholders.

With this in mind, this report uses the Statements of Intent as way-markers but focuses much more closely on an evolved set of evaluation questions, set out in Table 3, as these represent a more tangible set of values against which the qualification can be judged.

This section considers the processes used in the qualification design to see how robustly evidence and data have been applied to the design to meet the qualification's stated purposes (through the framework of the indicators).

Measuring the Statements of Intent

The BTEC Teacher and Learner Surveys are an annual snapshot of the extent to which the Statements of Intent are being met. The following summary is based on data extracted from the surveys.



1. Access and experience

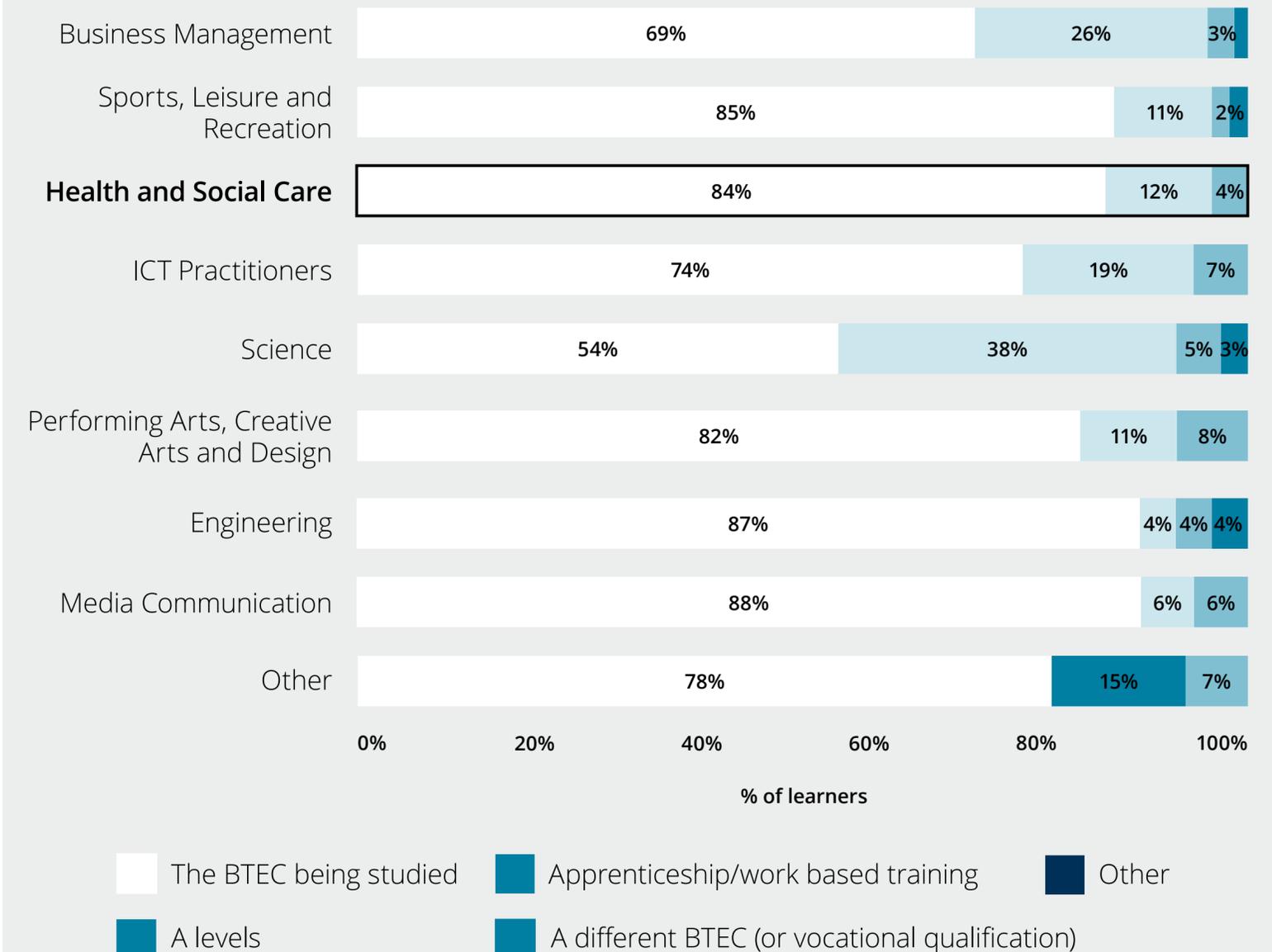
Statements of Intent in this category consider how learners experience the qualification in the holistic sense. Essentially the dominant theme here is that learners understand the qualification purpose, they are appropriately placed on courses, and the experience of being on the programme allows them to maintain a view that the qualification will help them to get where they want to go in their career.

Qualification purpose

Clarity about the purpose of the qualification is central to the experience of learners and its effectiveness in supporting progression. From data gathered in the 2018 and 2019 BTEC Teacher and Learner surveys, there is growing confidence that learners understand and engage with the purpose of this qualification. Pearson registration data puts this qualification as third most popular in 2019/20, with 8.2% of BTEC National learners taking at least one of the Health and Social care qualifications. This gives some confidence that the qualification has an established reputation within the sector.

A particularly high proportion of learners (84%) taking the BTEC Nationals in Health and Social Care reported that this BTEC was their first choice of qualification (Figure 4), suggesting some likelihood of a positive outlook about the course from the outset.

Figure 4: First choice of subject studied (BTEC Teacher and Learner Survey 2019, unpublished)



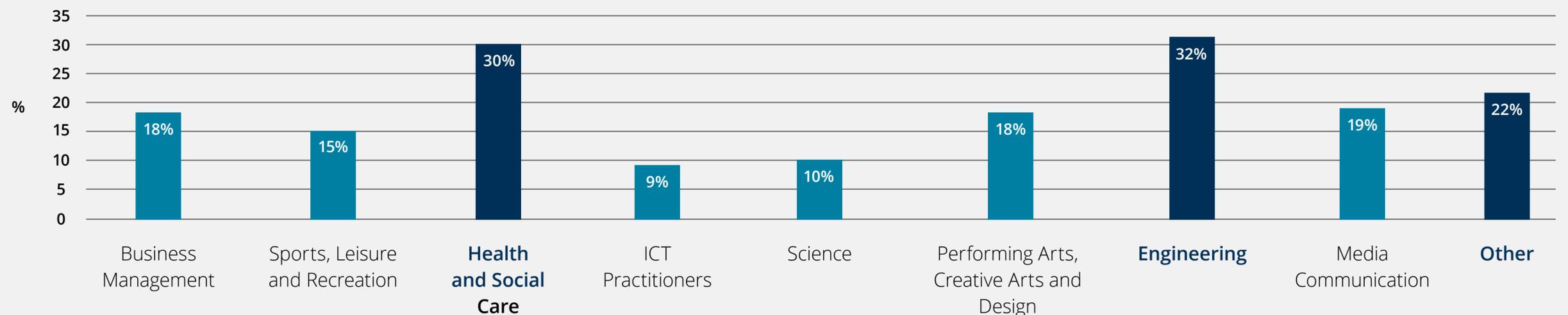
Health and Social Care learners were more likely than most to report that the most significant influence on their choice of course was that their parent or guardian encouraged them to take it (44%, compared to the mean for all subjects of 37%), or because someone already working in a related job advised them to do it (30%, compared to the mean for all subjects of 16%) – see Figure 5. This indicates that learners already had a reasonably good insight into working in this field, perhaps from family members and acquaintances who work in nursing, childcare or social work, for example. This insight and knowledge could indicate greater commitment to the course and their future career path.

Since most learners commence BTEC National programmes at Key Stage 5 (at age 16 to 19), it is accepted that a proportion of learners from any course will eventually pursue careers in sectors different from the subject they study at this age (although there is no reliable published data to show this nationally).

In the survey, teachers were asked to consider reasons why learners chose the course they are on. According to teachers, health and social care learners showed the strongest likelihood across all BTEC subjects to have selected this subject based on positive decisions about future careers.

Figure 5: Wider influences on decision to take BTEC course (BTEC Teacher and Learner Survey 2019, unpublished)

"I took some advice from someone already working in a related job"



1. Access and experience

In the survey, when thinking about the reasons why learners chose to do their BTEC course, teachers were asked to consider the statement '[learners] haven't made a decision about their future and this BTEC gives them flexibility to decide later' - 36% disagreed or strongly disagreed with the statement, higher than any other BTEC subject. This supports an assertion of this particular BTEC course as a more affirmative choice than others, and less likely to be a fallback option from another vocational course or A levels.

On a similar note, according to teachers, Health and Social Care learners are the least likely to have chosen their course simply because they want hands on or practical learning. Although 44% of Health and Social Care teachers strongly agreed that learners did choose the course for this reason, this was actually the lowest level of agreement among all subjects, compared to 100% in Media and Communications and 92% in Performing Arts, for example. This statistic helps to indicate a positive choice towards study with clear links to an occupation rather than simply choosing a vocational subject because of a perception about types of assessment – learners' preference for coursework over examinations is often cited as a reason for learners choosing vocational qualifications over A levels (Richardson, 2015).

Qualification design

This section considers the robustness of evidence that the qualification has been designed to meet its stated purpose and that appropriate stakeholder input and evidence has been used.

The following is a thematic summary excerpted from the final review of the ESAG panel in April 2015, with some additional commentary on final amendments that were made prior to the qualification being regulated.

The ESAG panel was strongly supportive of the new suite of Health and Social Care qualifications and agreed that these qualifications represented a positive step forward from the legacy (QCF) specifications. The term 'robust' was used consistently in reviewers' feedback. The panel considered qualification titles, and there was a strong view that the word 'support' should not appear in a qualification title (as had been suggested), as it could imply that the new content had been set at a lower level (given that support roles in the sector are generally at a lower level and do not require a degree). Also 'support' has a very specific meaning in Health and Social Care which is not addressed directly by the qualification; there are specialist support careers, preparation for which was not the purpose of this qualification.

There was also some concern that the proposed Diploma pathways lacked distinctiveness, which led to a change in optional unit combinations. Content omissions were also identified, with some content being moved from one unit to another.

Findings and analysis

There was very strong support for the work experience unit, particularly from HEIs, although it was noted that the importance of reflection and reflective practice needs to be emphasised throughout the work experience. The research unit was identified as needing further development to ensure that its focus is on evidence-based research related to the sector, rather than simply on contemporary issues which were not suitably demanding for the level.

Overall, the specification required an increased focus on ethical issues, safeguarding and reflective practice before its final submission. In terms of preparation for progression, ESAG members confirmed that the qualification content would support students planning to undertake a first-year undergraduate programme in Health and Social Care or related subjects. To better support progression, alongside developing key knowledge about the sector, the final specification included increased emphasis on developing the ability to evaluate, explore and question a range of views. The ESAG panel agreed that the content could help prepare students for employment in the sector: for example, by working as health care assistants.

Employer engagement

As progression to employment remains the ultimate aim of this qualification, it is relevant to consider the theme of employer engagement within the context of the access and experience category.

Employer involvement in delivery is a strong theme for all technical and vocational qualifications in England; it is cited by the DfE as a necessary part of the curriculum in order to provide a clear 'line of sight' to work (DfE, 2015) for technical qualifications.

In Ursula Renold's review of the BTEC National suite design for the WCQ panel in 2015, employer engagement was identified as a risk to the success of the suite. The review stated that it would be advantageous to require more than the minimum involvement as defined by the DfE. As the BTEC Nationals in Health and Social Care are Applied General qualifications, there is no statutory requirement to explicitly involve employers in the delivery or assessment of the course, although BTEC Extended Diploma qualifications do require work experience to be carried out, and it is an option in the Foundation Diploma and Diploma.

In the Online Community Insights research, teachers cited employer engagement as one of the biggest challenges they faced in delivering the BTEC Nationals. One FE college summarised 'we need employer partners to engage with us to be able to offer support in a range of different ways e.g. interview preparation, talks, apprenticeships, work placements, projects. It is difficult at times to get employers to engage with us.'



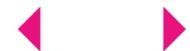
2. Standard of achievement

Assessment

Like all BTEC Nationals, the BTEC Nationals in Health and Social Care are assessed in two different ways.

External assessments are set and marked by Pearson. Depending on the size of the qualification, learners will have between one and four of these. In Health and Social Care they take the form of traditional exam-type assessments. Learners respond to questions in an answer booklet, and the assessment must be done at a time designated by Pearson. Units in the BTEC Nationals in Health and Social Care were chosen for external assessment because they contain underpinning knowledge and understanding that all learners must have before applying it in a vocational setting, and the most appropriate method of assessing these skills is by a test.

Internal assessments are designed, administered and marked by the learner's school or college. They must allow learners the opportunity to demonstrate their mastery of a set of assessment criteria written by Pearson. They are quality assured by a verifier trained by Pearson who visits the school or college. Depending on the size of the qualification, learners will have between one and nine units assessed in this way. The majority of units in Health and Social Care are internally assessed, and this reflects the skills-focused, vocational, context-led nature of the qualifications.



2. Standard of achievement

To evaluate assessments, Pearson uses three recognised Assessment Quality Indicators (AQIs): validity, reliability and fairness. Validity, reliability, and fairness have been defined as follows. We use a range of methods to ensure and verify the validity, reliability and fairness of the assessment component of the BTEC Nationals in Health and Social Care.

Validity	<p>Validity is 'the degree to which it is possible to measure whatever that qualification needs to measure by implementing its assessment procedure (Newton, 2017, p16). Validity requires evidence that test scores can be interpreted as they are intended, and can be appropriately used for a specific, defined purpose.' In other words, can grades from the BTEC Nationals in Health and Social Care be interpreted as a measure of learners' comprehension of the qualification content?</p>
Reliability	<p>Reliability is 'the consistency of scores across replications of a testing procedure' (AERA, APA, NCME, 2014, p33). Reliability requires evidence of the consistency of scores over time, across multiple forms of the assessment, and/or over multiple scorers.</p>
Fairness	<p>Fairness suggests that 'scores have the same meaning for all individuals in the intended population' (AERA, APA, NCME, 2014, p50). Fairness requires evidence that when assessments are administered as intended, items are not systematically biased against any particular group of test-takers and students are not hindered in demonstrating their skills by irrelevant barriers in the test administration procedures. In other words, can results from the BTEC Nationals in Health and Social Care be interpreted the same way for all learners, regardless of characteristics like gender and ethnicity?</p>



AQI1: Validity

Grades can be interpreted as a measure of candidates' comprehension of course content.

A key goal of the BTEC Nationals in Health and Social Care is to make sure post-16 students develop knowledge, understanding and skills in the health and social care sector. It is therefore important that this is represented in internal and external assessments.

In this section

1 Validity

2 Reliability

3 Fairness

Evidence related to AQI1

1. External assessments

Test specifications

These rules ensure that each test created is consistent with the Sample Assessment Materials.

Test specifications give assessment writers a common and consistent understanding of how to create tests. This ensures that standards are maintained over time, that each assessment targets the appropriate ability profile, and that candidates' experience of assessments is consistent.

Scrutineers' reports

Scrutineers are subject experts with input towards the end of the assessment writing process, before papers are finalised.

Scrutineers complete the assessment themselves, to make sure that all the questions can be answered, and that the assessment can be completed in the allocated time. Next, they review the mark scheme alongside the question paper, to ensure that the mark scheme takes into consideration the range of different ways students may approach the questions, and appropriately rewards students for what they are demonstrating. Each external assessment goes through this process.



AQ11: Validity

In this section

1 Validity

2 Reliability

3 Fairness

Reports for awarding

Senior examiners and the awarding officer complete these reports at the end of the marking process to inform and explain grade-setting decisions.

Senior examiners report whether questions performed as intended: that is, whether learners understood and answered them in the way they were intended. This shows colleagues which questions discriminated well, and which are likely to contain evidence of borderline performance at grade thresholds. The reports also help senior examiners review learners' work as part of the grade-setting process.

The Pearson awarding officer's report covers:

- potential risks identified before the assessment was taken, and the mitigations put in place for them
- an overview of complaints received about papers and questions
- statistical descriptors of cohorts' mark distributions
- psychometric reports for all items

2. Internal assessments

Pearson authorised assignment briefs

These are examples of internal assessments for schools and colleges to use.

Schools and colleges are free to use these exemplar briefs with their learners. They give clear examples of good practice for the internal assessments.

Assignment checking service

This free support service helps ensure that internal assessments help learners generate appropriate evidence across the criteria.

Schools and colleges can submit assessments for a Pearson subject expert to review. This feedback relates to whether the assessment is fit for purpose, and the extent to which it will allow learners to demonstrate their achievement against the assessment criteria.



AQI2: Reliability

A learner's outcome is stable, in that grades are consistent both over time and on multiple administrations of the same assessment.

Another important goal is to minimise errors in judgement and decision making by providing outcomes that are consistent over different assessment occasions and administrations. This AQI is measured in two ways for external assessments: inter-marker agreements (the extent to which different markers marking the same item agree with each other) and internal reliability (the extent to which all questions in the assessment test the same construct). For internal assessments, data comes from the quality assurance process.

In this section

1 Validity

2 Reliability

3 Fairness

Evidence related to AQI2

1. External assessments

Scrutineers' reports

Ensuring marks are reliable starts with the creation of the assessments. One of the roles of the scrutineers is to review the mark scheme alongside the question paper to make sure marks are being appropriately awarded, and that it is clear what a candidate needs to do in order for a mark to be awarded.



AQI2: Reliability

In this section

1 Validity

2 **Reliability**

3 Fairness

Standardisation

This is the process by which all markers learn how to apply the mark scheme as consistently as possible.

Every marker for external assessments must go through standardisation. This process is conducted online, by Pearson. They mark some answers shortly after the assessment to get used to applying the mark scheme, then contact their supervising examiner to address any questions or concerns.

Finally, they attempt two sets of items for each question: a practice set, annotated with guidance for applying the mark scheme, and a qualification set, where their marks are compared to a set of marks agreed by a senior examiner. If their marking compares accurately enough, then they are cleared to mark. If not, they talk through their understanding with their team leader and try again. Markers who do not meet the accuracy requirements on their second try will not be able to mark that question.

Marking quality reports

This is information relating to marker performance, for monitoring accuracy during marking. Ensuring marks are reliable starts with the creation of the assessments. One of the roles of the scrutineers is to review the mark scheme alongside the question paper to make sure

marks are being appropriately awarded, and that it is clear what a candidate needs to do in order for a mark to be awarded.

Data from post-results

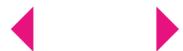
After results are issued, schools and colleges can ask a senior examiner to review the marking of individual papers.

From results day, schools can view their learners' completed assessments for free online, including the marks awarded for each item, finalised mark scheme and grade boundaries. If schools have concerns about results, they can ask for a senior examiner to review the marking of individual scripts.

Assessment monitoring technical reports

A report containing summary statistics to help describe the functioning of questions and assessments.

Pearson monitors the internal reliability of external assessments using Cronbach's Alpha. Internal reliability is a measure of whether the items in the test are measuring the same construct. We apply this measure both to complete tests and to each item individually. If the Cronbach's Alpha value for a test without an individual item is higher than the value for the complete test, that suggests the item is not assessing the general construct of the test in the same way as the other items.



Reliability

2. Internal assessments

For internal assessments, accurate outcomes are the collective responsibility of schools and colleges and Pearson. This process assures accurate outcomes. It is always evolving based on input from the parties involved.

Quality assurance for BTEC is a four stage process:



In this section

1 Validity

2 **Reliability**

3 Fairness

AQI3: Fairness

Qualification grades can be interpreted the same way for learners of different subgroups.

Pearson strives to provide grades that can be interpreted in the same way for all learners, regardless of demographic characteristics like gender or ethnicity. Fairness implies that when the assessments are administered as intended, items are not systematically biased against any particular group of learners, and learners are not hindered in demonstrating their skills by irrelevant barriers in the assessment administration procedures.

In this section

1 Validity

2 Reliability

3 Fairness

Evidence related to AQI3

1. External assessments

Test specifications and scrutineers' reports

Test specifications ensure that each test created is consistent with the sample assessment materials.

Test specifications help assessment writers avoid unintended bias for or against any subgroups taking the test when framing questions. This is also something the scrutineers consider when they report back on the assessments.

2. Internal Assessments

BTEC annual centre declaration

This is a form that schools and colleges complete to confirm that they have implemented all policies and procedures required of them when administering BTEC National qualifications.

The responsibility for devising assignments for internally assessed units lies with schools and colleges, although Pearson supports them through the process. This means they can take into account the local and individual requirements of their learners when developing assignments, so they can show the best of themselves. Pearson requires that they adhere to several policies related to fairness when delivering BTECs.



3. Progression

Case study: Nursing degrees

BTEC Nationals contribute significantly to progression to degree programmes that support vocational areas with high numbers of job vacancies. Using nursing as a case study in the Health and Social Care sector, we are able to show the extent to which BTEC Nationals support progression to nursing degrees in this high profile skills shortage area.

According to UCAS data, the number of acceptances for nursing degree programmes in 2017 was 28,620. Bearing in mind that not all acceptances onto a degree translate to admissions in any given year (learners may change their mind or defer as circumstances change), this figure indicates the number of available places in a single year. By triangulating this with HESA data, we understand the extent to which BTEC Nationals positively contribute to the supply of new nursing recruits.

HESA data also for 2017 indicated that 7,122 students entered nursing degree programmes having taken a BTEC National previously. The majority (5,445) of these learners had done a BTEC National in Health and Social Care. Others had taken BTECs in Applied Science (1,340), Sport and Sport & Exercise Science (283) and Childcare (149). By comparison, in the same year 5,947 students entered nursing degree programmes having taken A levels only. A report shows that in this year, 8,134 students entered nursing degrees having taken an Access to HE Diploma (Access to Higher Education, 2019). Other data from Scotland and on overseas students accounts for most of the rest of the learners.

In conclusion, the breakdown of figures is as follows:

Table 4: Entry qualifications used to access nursing degrees, 2017

Entry qualification	Number
A level only	5,947
BTEC	7,384*
Access to HE	8,134
Scottish Highers	3,174
International	530
Unknown	3,451
Total (UCAS acceptances)	28,620

**includes 262 HNC/D students*

The entry qualifications for 3,451 learners are unknown, as there is not a single source of data collection. These are likely to include students who have taken other awarding body qualifications as well as some additional BTEC learners for whom qualification data was not correctly recorded. It may also include HE places that were never filled (against original acceptances).

Learners' own confidence about progression

The BTEC Teacher and Learner survey showed a positive outlook towards progression and a clear focus on future careers for learners.

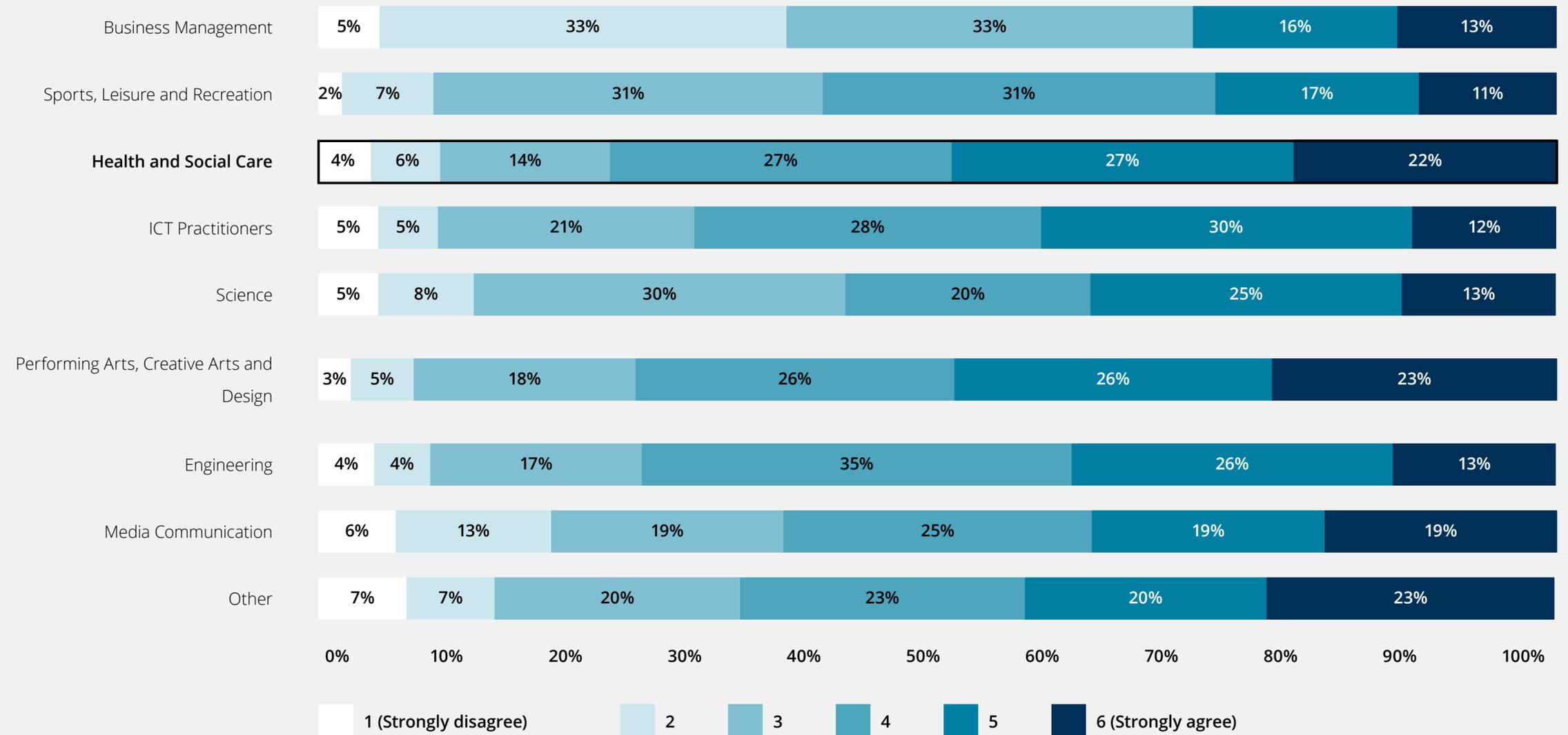
How to achieve their first step onto the career ladder is a stronger theme for Health and Social Care learners than for most others studying for BTEC Nationals. The health and social care sector tends to require credentials to a larger extent than most others and more and more jobs require a degree or similar qualification in order to enter a profession. This was supported by the survey, which showed Health and Social Care learners were amongst the highest percentage (64%) wanting to progress to university or college to do a degree upon completion of the BTEC.

This was echoed by teachers, 76% of whom indicated that learners would like to study for a degree in the future. These figures are reinforced by the responses of 88% of Health and Social Care learners saying their chosen career requires a degree in order to progress, and the joint highest percentage of all BTEC Nationals learners (73%) believing this BTEC will help them to pursue a career related to this subject.

The survey data suggests a strong understanding amongst teachers and learners about the purpose of the qualification. This can be further supported by an affirmative response from Health and Social Care learners when asked about their own hopes for the future, with 76% stating they felt some degree of confidence, the highest of all BTEC subjects (see Figure 6).



Figure 6: Learners in the 2019 survey were asked about employment hopes
 "My current path will take me where I want to go in my career"





Conclusion



Conclusion

As a first of its kind, this report has attempted to show to what extent the purpose of a qualification has been met by analysing:

- the design process
- the validity, reliability, and fairness of its assessment component
- the extent to which stakeholders perceive outcomes have been met.

In bringing the evidence together in this report, we have highlighted the multi-dimensional nature of the measurement of qualification impact – as well as the complexity of looking at vocational qualifications, used for multiple purposes in a regulated context.

From the outset, this suite of BTEC National qualifications has been designed on the basis of a wide research base. Early input from the higher education sector and employers ensured that content and assessment approaches were in line with sector needs. Input and endorsement from a panel of international experts ensured that lessons were incorporated from the highest performing jurisdictions for vocational education. Consultation with teachers through focus groups as well as a large-scale online survey with teachers and learners have provided rich sources of data, which give some strong indications of impact.

Evidence from consultation with sector experts in the design and development phases has helped to establish qualification content that meets the needs of a changing sector – and may even help to address well documented skills shortages in areas such as nursing.

On page 20, we highlighted the evaluation questions that guide this research. The aim of this report was not to answer these questions in detail, but to look at how the data can be used to indicate progress towards these and the statements of intent set at the design phase. The evaluation questions can be thought about in two main groups: first, the extent to which the purpose of the qualifications is understood; and second, the positive contribution the qualifications make to learners' employment hopes for the future. Data from the first two years of the annual BTEC Teacher and Learner Survey indicates positive affirmation of learners' choice to study these qualifications, and clarity among teachers and learners about their purpose. Employment hope indicators are stronger for Health and Social Care than for any other BTEC subject with respect to learners' confidence about progression.

This report is only a first step in measuring impact, and have focused mainly on access and experience and some elements of progression. Critical to the next stage of impact assessment, for these and similar qualifications, is to consider how they support learners to gain access to, and perform within, the workplace. As the RQF BTEC Nationals now enter their fifth year of delivery, we will see the first cohorts of BTEC National learners who have been through degree programmes enter the workplace from 2021. At that point, it may be useful to trace the outcomes of those students to see to what extent we can say that BTEC Nationals have supported successful employment outcomes.



Annexe A

As part of our commitment to being open and transparent about how we design, develop, and evaluate the impact of use of our products on learning, we produce a range of efficacy publications, including reports and guides. This report is one of our one of our **Qualification & Certification Reports.**



Technical Research Reports¹⁻²⁻⁴

These describe a single piece of impact evaluation research into the use of a product, undertaken to meet the standards expected for publication in a peer-reviewed academic journal. Selected statements in our Technical Research Reports are independently assured by Pricewaterhouse Coopers (PwC).



Product Guides & Spotlights³⁻⁴

These explain what the evidence about a single product means for users of that product. These combine research findings with stories from real users to help you replicate best practice with the product and achieve the best outcomes for learners



Assessment Reports³⁻⁵

These summarize the evidence about a single assessment's capability to measure a trait or ability in a valid, reliable and fair manner. These reports are not independently assured, because we do not expect assessments to have a direct effect on outcomes for individuals.



Product Efficacy Reports¹⁻³⁻⁴

These summarise all the relevant impact evaluation research related to the use of a single product. This includes research described in Technical Research Reports and learning research that informed the product's design and use. Selected statements in our Product Efficacy Reports are independently assured by PwC.



Qualification & Certification Reports³⁻⁵

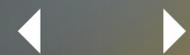
These reports include information about how the design of the qualification or certification was informed by research. They bring in evidence about how the qualification is delivered, and how it supports experience and progression. It summarizes relevant Technical Research Reports associated with the assessment of the qualification and impact evaluation research related to learner outcomes.

Key

- ¹ – Independently assured by PwC
- ² – Details a single study
- ³ – Summarizes all relevant evidence
- ⁴ – Evaluates impact on learner outcomes
- ⁵ – Evaluates assessment quality indicators: validity, reliability, and fairness



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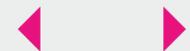
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