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Finding Potential:

How a selective University can attract and retain high quality students with equivalent qualifications to A levels

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In partnership with:



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Foreword

The research and teaching undertaken by universities concerns itself with developing new knowledge to help support a greater understanding of a world that is changing continually. The nature of post-16 education and training is also changing and has implications for higher education and how it understands its student intake. In recent years, we at The University of Sheffield have seen increasing numbers of students attending with qualifications other than A levels, including BTECs, the second largest qualification for entry to the University after A levels. We also recognised that there were differences in content and pedagogy between A levels and other equivalent qualifications. As such, the University initiated the *'Recognising 'Discovery Learners': Making HE Pedagogies Responsive to Equivalent Qualifications'* Project to inform ourselves better about our student intake. Additionally, as a highly selective institution with mostly A level entry, but which welcomes all students with ability, we also wanted to ensure that undertaking a BTEC was not a barrier for entry to the University.



As was intended, the Project has shed light on these important issues. The conclusions and recommendations in Chapter 6 will be helpful for institutions similar to The University of Sheffield as well as ourselves. Crucially, the partner relationship between University academics and school and college colleagues was invaluable and added a richness and depth to our work. The University built a greater awareness of equivalent qualifications, to help understand match to our courses, and school and college colleagues found out much more about the nature of study in the University. The collaborative development of new activities to support the student experience and piloting of these activities gave all stakeholders a sense of what might further improve the transition of students to higher education study. The views of students into the application processes and then studying at the University has offered an insight into perceptions about legitimacy of application and a sense of belonging upon entry, both of which are key areas of focus for the University.

The positive messages from our partners in this Project are very welcome and reflect the University's own experience. We believe that the Project has helped develop greater awareness and understanding of equivalent qualifications in the University. It has given us tools to further develop our own pedagogy and to continue to offer our students the best possible experience at the University. Most importantly, it helps ensure that students do not feel we place barriers to success in their way.

Professor Wyn Morgan

Vice-President for Education

Chair of the Project Steering Group

Acknowledgements

This Project is the outcome of an 18-month collaboration between six further education providers in the Sheffield City Region and the University of Sheffield.

We are grateful to our partner schools and colleges who were essential to the Project's development and success.

The University of Sheffield has valued its deepened collaborative partnership with Barnsley College (named Project lead), King Egbert School, King Edward VII School, Longley Park Sixth Form College, Meadowhead School Academy Trust and The Sheffield College.

The following University academic Departments and their staff participated directly in the Project, linking with the schools and colleges, and thanks are offered to them for their support and contributions to the Project and to the final Report:

The Department of Archaeology, the School of Architecture, the Department of Biomedical Science, the Department for Lifelong Learning, the Faculty of Engineering, the Department of Journalism Studies, the School of Law, the Management School, the Department of Molecular Biology and Biotechnology, the Department of Music, the School of Nursing and Midwifery and the Academic Unit of Ophthalmology and Orthoptics.

The following University services are thanked for their contributions to the Project and final Report:

Student Recruitment and Admissions, Planning and Insight, the President and Vice Chancellor's Office, the University Library, the University Secretary's Office and the Widening Participation and Research Evaluation Unit (WPREU).

We are also grateful to:

- The Higher Education Funding Council for England (HEFCE), now the Office for Students (OfS), for funding this Project, in particular to Amanda Wilcox for her support of the initiative.
- Pearson, in particular David Mackay, Head of Stakeholder Relations HE.
- Jackie Powell, former Head of the Higher Education Progression Partnership (HEPP).
- Sheffield Students' Union, particularly Kieran Maxwell (2017/18 President), for their advice and feedback on the Project.
- The Equivalent Qualifications Project Steering Group members for their informed oversight of the Project.
- Dr Julian Crockford, WPREU, for contributions to the Project evaluation and Report.
- Dr Tom Clarke, Department of Sociological Studies.
- The Project Manager, Betty Anyika, for the meticulous and enthusiastic planning and delivery of the Project outputs from its inception until February 2018.
- The Project Manager, Amy Sutherland-Jarvest, for the successful conclusion of the Project and this final Report.

Finally, we would like to thank all the students and staff who have given their time and energy to participating in this Project. It was the individual life experiences and testimony of applicants and students, presenting with equivalent qualifications to A levels from the participant schools and colleges, which gave the Project its energy, life and purpose. They are in every sense the evidence on which this Report and its findings are built.

Dr Tony Strike

University Secretary

Director of Strategy and Governance

The University of Sheffield

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Comments from our Project partners

Lead partner: Barnsley College

We are delighted to have been able to work with a coalition of partners across the Sheffield City Region to support and champion our equivalent qualifications students.

It has been important to challenge misconceptions about these students when they are compared to those on the traditional academic route of A level only qualifications.

We became involved in this Project to develop tailored student support to enable our students to successfully transition to higher education. As a result of the Project, we have gained a clearer understanding of the skill-sets that are essential and desirable for learners to acquire before they enter HE. It has been important to enable equivalent qualifications students to study successfully in their first and subsequent years. As a result of the Project we feel we are better equipped to achieve this objective and do the best for our students.

Lorraine Copley, *Dean of University Campus Barnsley*

King Egbert School

We joined the Project to find out more about the transition to HE and to do justice to our BTEC students, ensuring that we can fully prepare them for life at university.

We feel that equivalent qualifications can be seen by universities as a second class qualification. This Project has made steps to challenge this and to highlight the true beneficial nature of the qualification and the skills that students learn. It is essential that the profile of BTECs is raised across the city, from university through to parental level, so that students feel proud to complete the course, giving them greater confidence when they do progress to university.

A number of our students took part in the Project Summer School and truly benefited. Our students came back from the Summer School with a real buzz and are now very eager to progress to university.

We gained so much from this Project, from the opportunity to network with academics, other local schools and third parties, to the generation of new and innovative ideas sparked by the discussions and relationships built with students and staff. We gained particular insight from the student interviews (Chapter 5).

We would strongly recommend that other schools and universities make efforts to replicate these networks and connections.

Rebecca McCairns, *Director of Sixth Form*

King Edward VII School

We are a forward thinking and outward looking school and always wish to support projects and research that are interesting and beneficial to our students. We have recently extended our BTEC provision at Level 3, so the Project was perfectly suited to our position.

We were aware of the wider challenges equivalent qualifications students face, such as retention issues in HE for students holding only BTECs, and we wanted to find out more about why this might be and to ensure our students are well prepared for university.

Our desire is to help raise the profile of non-A level courses and the mixed economy route (combined qualifications) in particular. It was also important to us to express to the University the nuances of equivalent qualifications, including the difference between old and new BTECs and the strength of candidates holding mixed qualifications (A level and BTEC).

A key recommendation from our position is that all universities should make their admissions criteria clearer. As evidenced in the Project, too often BTECs are included as an afterthought or not mentioned at all in university prospectuses. Universities need to be clear and upfront about their position with regards to equivalent qualifications.

Jeremy Twyman, Assistant Headteacher and Director of Post-16 Education

Longley Park Sixth Form College

The Project has been the start of a breakthrough in understanding how great a job we do (at local schools) in preparing our students for HE study and how valuable BTEC students are. The Project is breaking down barriers and challenging some of the preconceptions that can affect BTEC students.

As a result of the Project we have developed a firm and continued relationship with the School of Nursing and Midwifery at TUoS. The commitment to supporting our students and our College shown by the Department is very significant and will continue to benefit both sides for the long term future.

A large number of our students attended the Project Summer School and they are now studying and thriving at TUoS. The whole Project was a wonderful experience and thanks to the relationships we have built and the work we have done with our students we are confident more of our students will apply to study at TUoS and to other HE providers.

Tania Hussey-Yeo, Assistant Principal

Meadowhead School Academy Trust

We are a local FE provider with strong links within the city and we offer our Sixth Form students a blended pathway of A level and BTEC qualifications, consequently the Project themes were highly relevant to us.

Before the Project took place we found that some students expressed a reluctance to apply to Russell Group universities and that, quite simply, they thought a BTEC qualification would not be accepted. We wanted to find out more about this and to robustly challenge the misconceptions held by students, schools and universities.

As a result of the Project, all of our Y12 students were able to take part in a study skills activity in conjunction with the University. The outcome from the research activity has increased the number of students interested in taking the Extended Project Qualification, and we are confident that the research activity and the exposure to the University will better prepare them should they choose to progress to HE.

We firmly believe that the reformed BTEC qualification will prepare more students for university than ever before and are confident that the collaborative working that we have engaged in puts us in a strong position to guide our equivalent qualifications students on to the next step.

Sarah Burdekin, Assistant Head, Sixth Form

The Sheffield College

We were extremely keen to get involved as it is a priority for us to promote and deliver a strong academic skills programme to our students. We utilised the Project as an opportunity to enhance and develop our Learning Resource provision and Academic Skills Programme for the benefit of our equivalent qualification students.

Being part of this Project has confirmed that there is a need for post-16 learners to develop their independent research and study skills. A key recommendation from our position is that young people should be taught academic skills at an early stage, and that developing these skills will have a positive effect on student outcomes. Taking part in the Project and analysing the research findings, confirmed our belief that we need to be proactive in promoting and delivering study skills sessions to our students. These skills are important in any student journey and can be used as they move into HE or employment.

We are positive that, as a result of our students undertaking the study skills programme, they will go on to develop a range of academic and transferable skills that will benefit them while studying, as well as in the workplace.

Alison Whitton, Learning Resources Manager

Higher Education Progression Partnership (HEPP)

It is vitally important for students to be able to access HE using a variety of education and training routes. The HEPP partnership, funded by the two Sheffield universities, has a track record of widening participation across the region and recognises the importance of universities playing a strong role in supporting access. Moving to HE can be a tricky time for many students, perhaps more so for those using routes other than A level, so universities continuing to work with schools and colleges to help bridge the transition is important and is beneficial to students making this journey. I welcome the University's focus on this area and I believe it will lead to positive change for students.

Jackie Powell, Head of HEPP throughout the Equivalent Qualifications Project

Pearson

Over the last decade, there has been a big increase in the number of BTEC students who have progressed to higher education. Pearson has been engaging with higher education institutions in recent years to monitor the success of those students on their degree programmes. The consistent message that we have received is that, provided that they complete the first year, BTEC students do very well.

We were greatly encouraged by the excellent initiative taken by the University of Sheffield through its Equivalent Qualifications Project in exploring ways of supporting BTEC students through that important transition phase. We were very pleased to be involved in the Project and have been impressed by the commitment of TUoS staff in this work, which has also led to the strengthening of links between TUoS and the local schools and colleges. We are sure that the Project will lead to greater success in future for BTEC students who embark on degree programmes at TUoS.

Executive summary

The University of Sheffield (TUoS or the University) started a project in Spring 2016 to look at the transition of students entering the University with qualifications other than A levels. This was within the context of a University of Sheffield strategic aim to attract high quality students, and increase the range and type of our widening participation (WP) initiatives to identify talent and potential from diverse backgrounds and support achievement, and in response to changing trends in students' entry qualifications.

A successful bid to the Higher Education Funding Council for England's Catalyst Fund enabled the University to extend the ambition of the Project, working collaboratively with a range of local colleges and school sixth forms. The funding enabled a richer more active project to be undertaken. The funded Project, 'Recognising 'Discovery Learners': Making HE Pedagogies Responsive to Equivalent Qualifications', formally ran from November 2016 to April 2018.

The Project involved undertaking a practical set of activities which were collaboratively determined with our partner schools and colleges, and University Departments, to understand better, and potentially support students with equivalent qualifications to A levels transition to studying at TUoS. We focused on Level 3 BTEC Nationals, reflecting the nature of the qualification's dominance in terms of entry to higher education (HE) for those with equivalent qualifications to A levels. In terms of entry on to TUoS courses, BTECs are the largest qualification held proportionally after A levels.

The University started with an understanding that students entering our courses with equivalent qualifications at times faced different assumptions and perceptions. University data also seemed to indicate different rates of completion and attainment for students with equivalent qualifications compared to students with A levels.

In summary, the Project found that:

- The University broadly reflected national trends in terms of a growth in the number of students entering the institution with equivalent qualifications; we also had similar findings in terms of poorer degree outcomes for BTEC only students, compared with A level only students.
- Students, school and college staff, and University academic staff expressed positive views about the skill-set that students with equivalent qualifications came to the University with. This includes: strong group work and presentation skills; experience and confidence with regular assignments; and a greater understanding of the workplace and vocational environment. However, views about some challenges were also expressed concerning transition, in particular the examination focus of many University courses.
- Supporting transition by tackling barriers students with equivalent qualifications might face was seen as an integral part of supporting the student experience; rightly a legitimate focus for any institution.
- A key issue for a University such as Sheffield, highly selective with A levels dominating entry qualifications, was an adjustment in teaching and assessment methods. Namely, to understand the content and value of equivalent qualifications

and to ensure that there was no negativity associated with the pedagogic approach for these qualifications when students were in the 'classroom' as a 'minority'. Effective relationships with schools and colleges to support this understanding, and an underpinning commitment to equality of opportunity was essential.

The partners within the Project were:

Schools and colleges:

- Barnsley College, Barnsley.
- King Egbert School, Sheffield.
- King Edward VII School, Sheffield.
- Longley Park Sixth Form College, Sheffield.
- Meadowhead School Academy Trust, Sheffield.
- The Sheffield College, Sheffield.

The University and following Departments:

- Faculty of Arts and Humanities: Department of Archaeology; Department of Music.
- Faculty of Engineering: Foundation Year.
- Faculty of Medicine, Dentistry and Health: Academic Unit of Ophthalmology & Orthoptics; School of Nursing and Midwifery.
- Faculty of Science: Department of Biomedical Science; Department of Molecular Biology and Biotechnology.
- Faculty of Social Sciences: Department of Journalism Studies; School of Law; Management School; School of Architecture.

Specialist advisory partner organisations:

- Higher Education Progression Partnership (HEPP).
- Pearson.

The Project undertook six key activities:

1. School/college and University observations.
2. Equivalent Qualifications Summer School.
3. Mentoring scheme enhanced promotion.
4. Transition to HE Module for current undergraduates.
5. Online library learning resource for further education (FE) students.
6. Evaluation of the student experience.

The Project conclusions and recommendations are below:

Conclusions

1. Entry into HE with a diversity of qualifications

The numbers of students holding a BTEC has increased over time as a percentage share of university applications. T levels and apprenticeships are likely to increase the trend towards a greater mix of pre-entry level qualifications, other than A levels.

2. Curriculum, teaching and assessment methods

Given most students in most subjects in selective universities hold A levels, a danger exists that the different pedagogical experience of those students with equivalent qualifications is ignored or prior knowledge is assumed. Overall, the percentage of students who obtained a good degree during 2011-2016 is consistently higher for students who entered the University with A levels only, but it is not clear whether this can best be explained by differing ability or by the fact students with equivalent qualifications are less understood or less recognised as a minority, or other reasons.

3. Disciplinary differences

Analysis of the University's Departmental data has shown dramatic differences in the number of students entering the University with equivalent qualifications by Department. Students with equivalent qualifications are not equally represented across the Faculties or Departments. Students and academics report different experiences related to how vocational their subject is and the presence of other students with equivalent qualifications. This means any discussion or decision-making about whether or not to accept students with equivalent qualifications may need to come to different conclusions in different disciplinary contexts, and not be seen as choices over different qualities of intake but as choices about the appropriateness and diversity of intakes. Again, it is not clear whether the differences observed are a result of better accommodation of difference in some disciplines, or a true reflection of where prior particular skills better match the academic discipline.

4. Relationships

Nearly all the schools and colleges commented on the positive impact of either developing or further cementing relationships with Department academics. This was seen as key for addressing 'myths' about BTEC study and for supporting participation into HE. Department staff also found this added value to their understanding (as below).

5. Myth-busting

The value of sharing fuller information and facts about BTEC study was also welcomed by Departments, and this was seen as an essential part of the relationships built or furthered through the Project. The views of students and staff in the research work also demonstrate how important it is that there is a better understanding of BTEC study and content in HE. This can help to challenge

possible misconceptions, biased perceptions and 'snobbery' by supporting better informed views.

The nature of change in vocational education can lead to challenges of keeping up-to-date. BTECs have already undergone a major change which affected the nature of the qualification (in some respects bringing it closer to A levels), but understanding qualifications and the match with degree courses is a core part of any university's recruitment work.

6. Diversity and inclusivity

It is clear that BTECs are in and of themselves not automatically a widening participation (WP) indicator; many different types of students undertake BTECs, many of whom will not fall under WP activities. However, the data indicates that many BTEC students come from backgrounds which would be supported to access HE, in recognition of the barriers to entry which exist. As such these students would have received targeted outreach support from universities. The Project partners are mindful of the relationship between WP and BTECs and believe that fundamentally HE should ensure it does not lose out on talented and able students based on assumptions about the qualification studied. We also recognise that HE should be open to all those with the talent and ability to undertake courses at the higher level. Treatment of students when they are in HE is key to supporting inclusivity, reflecting the comments made by students about feeling unwelcome or 'different' in HE.

Recognising the future challenges of a changing labour market and both economic and societal needs of the UK, in the near and long-term future, should also be a driver for considering the relevance of a set of wider entry qualifications into HE.

7. Transparency

The Project experienced some difficulties concerning collecting a full data picture about BTEC students in the University, for example in terms of capturing entry qualifications consistently and systematically across the University. This might be replicated elsewhere and addressing such issues would help to be clearer about the diverse nature of entry qualifications in HE. School/college partners and students expressed a need for clear information on admissions criteria.

8. Supportive transition activity

The Project strands which supported transition into HE were seen as positive developments, in particular the HE Module, the Summer School and we believe the online module will also be beneficial. All partners found the class observations in each other's own environments very useful in supporting both a better understanding of BTEC study but also course requirements in HE and the nature of the study. Supporting academic skills development was also seen as useful activity, via the work of the modules and Summer School. Such development work was seen as beneficial for a wider group of students, not just those entering with BTECs. This work may be separate to an institution's outreach work, although there may be complementary activity. As said above, equivalent qualifications students are not automatically supported to access HE due to under-representation.

Recommendations

The Project partners recommend:

1. HE providers and schools/colleges should support appropriate and proportionate relationships with each other, involving linking academic/teaching staff where that is possible.
2. HE providers and schools/colleges should work together to ensure accurate information about BTECs and other non-A level qualifications are disseminated widely within a HE provider. This will support 'myth-busting' but also enable admissions and academic staff to make informed decisions about the appropriate match between students' prior qualifications and their chosen HE courses.
3. HE providers should support an inclusive teaching and learning environment and be aware about how negative pre-conceived views on equivalent qualifications may impact on students.
4. HE providers should improve data capture of entry into their institutions of students with equivalent qualifications by ensuring that data collection is consistent and systematic. HE providers should ensure admissions criteria are clear and informative to students.
5. HE providers should consider what transition activities they can undertake to support the success of their equivalent qualifications students, who will have already met competitive criteria for entry.



Chapter 1

Introduction

*Responding to a changing
higher and further education world*

The University of Sheffield (TUoS or the University) is committed to understanding the changing world of higher education (HE) and developing strategies and practice to meet the opportunities and challenges of change. Our primary aim is to help improve the student experience, both within the institution and nationally. In this Report, the wider context of changes in post-16 education, from which our students are selected, and the relationship with HE is explored, and our aim of attracting and recruiting students with the potential to succeed.

Our Strategic Plan 2016-2021 says we will continue to attract high quality students, increasing the range and type of our widening participation (WP) initiatives to identify talent and potential from diverse backgrounds and supporting achievement. Within this strategic aim, the University decided in Spring 2016 to undertake a project looking at the transition of students entering the University with qualifications other than A levels, recognising the changes taking place in terms of qualifications studied for entry to our courses. Funding received from the Higher Education Funding Council for England's Catalyst Fund enabled the University to extend the ambition of the Project, working collaboratively with a range of local colleges and sixth forms. The funding enabled a richer more active project to be undertaken. The funded Project formally ran from November 2016 to April 2018.

This Report captures insight gained from this Project, where a practical set of activities were collaboratively determined in partnership with schools, colleges and University Departments to understand better, and potentially support students with equivalent qualifications to A levels transition to studying at TUoS. The University was not attempting to prove or disprove a hypothesis via research in this Project. Informed by anecdotal evidence within the University we understood that students entering our courses with equivalent qualifications at times faced different assumptions and perceptions. University data also seemed to indicate different rates of completion and attainment for students with equivalent qualifications compared to students with A levels. This initial view of potential differential experiences led to the Project's development, its aims and objectives. As such, the Project, *'Recognising 'Discovery Learners': Making HE Pedagogies Responsive to Equivalent Qualifications'* (Equivalent Qualifications Project or the Project), aimed to redefine the narrative and pedagogies attached to these students. The Project was concerned with addressing the potential perception of pre-HE qualification deficiency. In particular, by developing a recognition of the unique set of skills demonstrated by these students as advanced practical 'discovery learners' engaging in qualifications which are potentially of equal or equivalent value to A levels, as opposed to 'lesser' qualifications.

Although we provide some local and national context, this Report is not attempting to offer a comprehensive national picture of vocational entry qualifications into HE, or the wider experience of students who enter with such qualifications. We offer a brief quantitative context in terms of the University's student body to aid understanding of the nature of the University's student population as a setting for the Project. The Project predominantly focuses on BTEC students, reflecting the nature of the qualification's dominance in terms of entry to HE for those with alternatives to A levels. In terms of entry on to TUoS courses BTECs are the largest qualification held proportionally after A levels (see Chapter 3). Additionally, the Project focused on BTEC Nationals as the Level 3 qualifications suitable for entry into HE (see Chapter 2 for further detail on BTECs).

Explaining the terminology used

Within the Project we agreed to use the term 'equivalent qualifications', moving from the phrase 'alternative qualifications' initially used. The terminology was chosen to express the clear view of all the partners in the Project that qualifications other than A levels, but on the same qualification level, were in no way 'lesser' qualifications but did have differences in the nature of content, study and assessment methods. A label should serve a purpose of helping to understand the issue considered but we recognise there is little difference between the terms 'equivalent' or 'alternative' in practice, and our decision on usage was a pragmatic approach to help frame the issue the Project wished to investigate.

The partners within the Project were:

Partners – schools/colleges
Barnsley College, Barnsley
King Egbert School, Sheffield
King Edward VII School, Sheffield
Longley Park Sixth Form College, Sheffield
Meadowhead School Academy Trust, Sheffield
The Sheffield College, Sheffield

University Faculty	Participating Departments
Arts and Humanities	Department of Archaeology, Department of Music
Engineering	Foundation Year
Medicine, Dentistry and Health	Academic Unit of Ophthalmology & Orthoptics, School of Nursing and Midwifery
Science	Department of Biomedical Science, Department of Molecular Biology and Biotechnology
Social Sciences	Department of Journalism Studies, School of Law, Management School, School of Architecture

Specialist advisory partner organisations
Higher Education Progression Partnership (HEPP)
Pearson



Chapter 2

Context

The changing national picture

Reform of vocational/technical education

Level 3 education, namely education required in some form for entry into HE, has been subject to major change in much of the post-WWII time period. The history of education reform would take several reports to describe, we do not attempt this. Two examples of interesting and engaging histories are offered in Richard Evans' *A Short History of Technical Education* and Derek Gillard's *Education in England: a brief history*. Three recent reports from the Social Market Foundation, *Vocation, Vocation, Vocation* (Gicheva & Petrie, 2018), Scott Kelly, *Reforming BTECs: Applied General qualifications as a route to higher education* (Kelly, 2017) and UCAS's *Progression Pathways* (UCAS, 2016) set out the changing position of BTECs in vocational education and HE. However, for contextual purposes, we briefly describe below some of the reform which has impacted on academic/vocational routes into HE and the rise of BTECs as a qualification route. The OfS has also recently published further analysis about differences in student outcomes, focusing on differences between students entering HE with A levels and with BTECs (see *Richer data tells us more about students in higher education*).

The terms academic and vocational are not dualisms, cannot be polarised and are themselves contested and often overlap. Attempts to set a crude distinction between application of existing knowledge for the purposes of employment/specific occupations (vocational) and acquisition of new knowledge for its own purpose (academic) can be challenged through real-world examples. Many disciplines are obviously academic and vocational such as Medicine, Engineering, Law, Architecture, Design and so on. More broadly, the study of apparently non-vocational subjects provides important transferable skills and those learning vocational skills always need underpinning knowledge and understanding. That said, historically, attitudes to what has been perceived as vocational and academic education have differed, often with the former being seen as lacking parity with the latter. Much of this attitude could be connected to divisions in class in the UK, which groups dominate the most prestigious professions and what forms of education are embarked on by those groups. The thread that connects many of the numerous reviews of vocational education is the attempt to address this perceived divide for the benefit of individuals, wider British society, and the British economy. Additionally, the focus of many of the reviews has been to bring simplicity or coherency to a hugely diverse qualification landscape.

Since 2010 there have been five key independent reviews commissioned by the Government to consider specific aspects of the vocational education system: The Wolf Review focused on vocational education at 14-19; The Commission on Adult Vocational Teaching and Learning Report examined what makes excellent vocational teaching and learning; The Whitehead Review looked at adult skills; and The Richard Review considered apprenticeships (DfE, 2016a, p24). The most recent review has been the Sainsbury Panel Report, *Report of the Independent Panel on Technical Education* (DfE, 2016a). The Sainsbury Report acknowledges the challenges of further change:

“The challenge for future reform is to build on these developments and to integrate them to produce enduring, system-wide change. What is needed is a national system of technical education that provides industry with a world-class cadre of highly productive and skilled individuals and gives individuals a clear and attractive pathway from education into skilled occupations at the highest levels” (DfE, 2016a, p24)

The Sainsbury Panel's recommendations were accepted by Government and translated into proposed policy changes in the *Post-16 Skills Plan* (DfE, 2016b), followed by the *Post-16 technical education reforms T level action plan* (DfE, 2017a); a further Government consultation on T levels closed in February 2018 (DfE, 2017b).

The Post-16 Skills Plan stated that post-16 students would have the choice of following an academic or technical route. The Plan set out the introduction, for 16 to 19 year olds, of a new framework of 15 technical routes to skilled employment. The Government states that "T levels are new technical study programmes that will sit alongside Apprenticeships within a reformed skills training system" (DfE, 2017a, p4). The routes will be either classroom-based (T levels) or work-based (apprenticeships). Eleven of these routes will be delivered as classroom or workshop based programmes, as T levels, the other four routes are apprenticeship only. The first teaching of T levels is intended to start from September 2020, with a second wave delivered in September 2021 and all routes being available by 2022.

This further skills reform marks significant change in the post-16 education and training sector alongside recent A level reform. A level reform has resulted in new AS and A levels taught in schools in England from September 2015 and a move back to a linear rather than modular qualification with a final exam (see *Get the facts: AS and A level reform*). There is potentially more change to come affecting BTECs directly. BTECs, as applied general qualifications, are categorised as part of the academic route in the technical education reform plans. The Government has stated its intention to review the range of qualifications it funds, including considering the role of applied general qualifications (DfE, 2017b, p9).

BTECs and entry to HE

The history of BTECs themselves forms an interesting example of the nature of flux in vocational education. The Business and Technician Education Council (BTEC), as it was originally called, an awarding body, was formed in 1983 from a merger of the Business Education Council (BEC – established 1974) and the Technician Education Council (TEC – established 1973), became an independent body in 1993, and a further merger led to the creation of Edexcel – which shortly after became privately owned by Pearson Education Ltd. (HC Deb 8 April 1986; Education (Grants and Awards) Act 1984). Historically, BTEC was one of the three major vocational awarding bodies alongside the Royal Society of Arts, City and Guilds, and the name BTEC was and still is used to refer to the qualifications awarded.

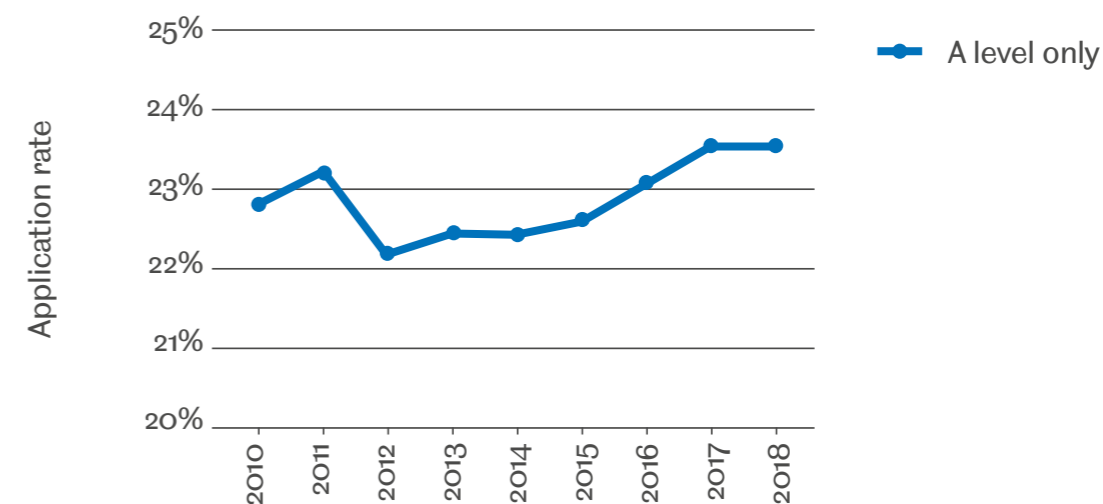
BTECs are a vocational qualification at Level 3. Although there are a range of vocational qualifications the focus of this Project has been BTECs as they are nationally the second highest qualification held by 18-19 years olds applying to HE. BTECs cover subjects such as Applied Law, Applied Science, Business, Art and Design, Computing, Engineering, Performing Arts, Sport, Business, and Health and Social Care. Some BTEC subjects lend themselves more strongly than others to being routes into HE.

BTEC Level 3 qualifications are classed as applied general qualifications or tech level qualifications by the Government. The applied general qualifications are mainly the Level 3 qualifications for post-16 students who want to continue their education through applied learning. The applied general qualifications are intended to lead to progression to HE rather than directly to employment (DfE, 2017c, p22). Students entering HE can apply with BTECs only or with BTECs combined with A levels, depending on the admission requirements of the chosen course.

BTECs as a qualification have seen a significant increase in take-up as an entry qualification to HE. Introduced in 1984, there were fewer than 50,000 students undertaking a BTEC in 2006, but by 2014 this number had tripled with an estimated 150,000 studying a BTEC (Gicheva & Petrie, 2018, p6). The Social Market Foundation's analysis of UCAS data from 2016 indicates "that vocational qualifications now feature frequently among university applicants, with one in four of all applicants from England (26%) having studied at least one BTEC qualification at Level 3" (Gicheva & Petrie, 2018, p6).

There has also been significant growth in numbers of students with BTECs combined with A levels recently, and numbers of students with A levels only have dropped. However, the fluctuations in the numbers of students entering HE with A levels may be connected to the end of the current 'demographic dip', with the temporary fall in the population of 18 year olds. UCAS admissions data (UCAS, 2017 and 2018) sets out the changes in types of qualifications, and associated student numbers, used for entry into HE, this is also shown in Figure 1.

Application rate by qualification group: Proportion of the UK 18 year old population that applied, split by qualification group (as at 15 January UCAS deadline) (A level only group)



Qualification groups excluding the A level only group

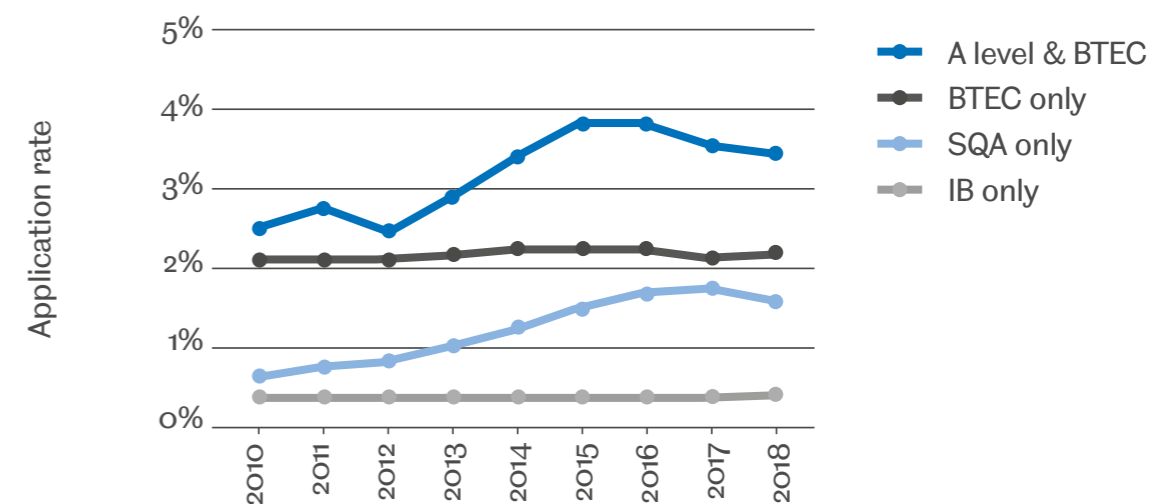


Figure 1 Source UCAS 2018 Cycle report, p41, p42¹

¹Scottish Qualifications Authority (SQA), International Baccalaureate (IB).

Introduction of the new BTEC

As well as A levels being reformed, BTECs have also undergone a complementary transformation. The new BTEC, introduced in 2016, will see the first completers apply to university during the Summer 2018 cycle. The new BTEC promises to remove some early concerns that BTEC students do not acquire examination and revision skills and do not develop enough 'academic rigour'. The BTEC qualification will include externally assessed coursework, a written examination paper (on most courses) and a reduction in resubmissions and re-sits. In contrast to the old BTEC which did not require formal exams, which was usually assessed by the student's teacher and allowed for resubmissions (see *New BTEC Nationals 2016 to 2018*).

Due the timing of this Project we will not be able to assess the impact of the new qualification at TUoS, the Project data and evaluation relates to students studying the old BTEC.

BTEC students and widening participation

BTEC student demographic data shows that these qualifications represent a clear opportunity to increase the diversity of the HE student population compared with A levels as they are more likely to be taken by students with lower participation in HE e.g. from lower socio-economic backgrounds and black, minority ethnic backgrounds (BME). The Social Market Foundation research highlights BTECs are popular amongst students from disadvantaged backgrounds, such as those classed as Polar 1 and Polar 2²; 44% of white working class students who make it to HE have at least 1 BTEC (Gicheva & Petrie, 2018, p17). BTECs are also disproportionately held by BME students. The Social Market Foundation found that 48% of black students admitted to HE have at least 1 BTEC (Gicheva & Petrie, 2018, p6).

More recently HEFCE has published a report on differences in student outcomes (HEFCE, 2018) and the OfS has also recently published further analysis focusing on differences between students entering HE with A levels and with BTECs (see *Richer data tells us more about students in higher education*).

Views on BTECs

There are long-held views about vocational qualifications and BTECs, reflecting divisions between the so-called academic and vocational in the UK, but also content differences between the two. Many examples can be found of these views over time, and they are often expressed in similar ways every few years. Examples range from concerns from universities in the 1996 Dearing Review of Qualifications for 16-19 Year Olds on the maths ability of entrants or whether vocational qualifications (GNVQs) would prepare students for certain HE tasks (see Dearing, 1996, p9-10 cited in Gillard, 2011); views of students and lecturers in Fisher's research study (Fisher, 1999); to current views expressed by Headteachers and individuals from higher socio-economic groups (Gicheva & Petrie, 2018). The Project's work exploring the views of BTEC students and HE academics found very similar, but mixed, views (see Chapter 5).

Without evidence there is a danger the perception that vocational qualifications do not prepare students well for HE causes direct discrimination against those holding equivalent qualifications to A levels and indirect discrimination against those from lower socio-economic backgrounds and BME backgrounds. There is also a danger that those students holding equivalent qualifications and with the potential to succeed in a selective university are denied the opportunity to do so. The Government's education and skills reform agenda is concerned, it states, with ensuring that the UK can meet its current and future economic challenges, and also ensure individuals have the best opportunities to succeed (DfE, 2016b, p5).

Proponents of BTEC study maintain that combined study i.e. A levels studied alongside a BTEC, is a better combination of study than one particular route alone. The combination of regular self-led project work and group activity contained within BTECs, combined with the rigorous academic study and revision techniques found in A levels, is considered as producing an ideal student for HE education (Reidy, 2015). UCAS in its Progression Pathways Report also highlights both the challenges and benefits of equivalent qualifications as entry routes into HE, and changes HE providers might choose to make to support transition (UCAS, 2016).

Other selective universities, which also mainly have an A level entrant population, are undertaking work considering transitions to HE for students holding equivalent qualifications e.g. Exeter University (see *Transforming Transitions*), Brunel University (see *Transitions Project*).

What next in policy development?

If current trends continue we would expect to see either an increase in the number of students studying and applying to university holding at least one BTEC, or for figures to remain steady. Universities are likely to see combinations of qualifications, such as A level and BTEC, from students in the future. If this is the case it will be important to prepare academic departments and recruitment/admission teams for the diverse qualification combinations they may experience in the future, particularly given the new T levels.

After a much reported demographic decline, the number of 18 year olds will begin to increase in the next few years due to a demographic 'baby boom', which is already being experienced in secondary schools. Once these students reach university entry age, it is possible that universities will see a return to a more competitive UCAS application process.

A recent report published by the Higher Education Policy Institute (HEPI) predicts that the decline in the number of 18 years olds applying to university will halt in 2019 and will increase by nearly 23% over the next decade, which would cause demand for an additional 350,000 places (Bekhradnia & Beech, 2018, p4). The HEPI Report argues that the current funding mechanism cannot maintain this level of increase and therefore either a cap on student numbers will be required or a review of tuition fees may be necessary. One possibility is that selective universities maintain a focus on A level grades as their required prerequisite rather than seeking potential across the post-16 qualifications spectrum.

² The participation of local areas (POLAR) classification groups areas across the UK based on the proportion of the young population that participates in HE. These groups range from quintile 1 areas, with the lowest young participation (most disadvantaged), up to quintile 5 areas with the highest rates (most advantaged).

Concluding remarks

Change has marked the post-16 qualifications sector and its relationship with HE, and we can potentially expect more stemming from the Post-18 Education and Funding Review and further marketisation in HE. Many universities have a mission to search out talent wherever they can find it and take seriously their duties to widen access to HE. The University of Sheffield is committed to supporting access and to ensuring we place no barriers to the success of our students. The University is a highly selective institution with a strong track record of attracting and retaining students from under-represented groups in HE. The University has a longstanding commitment to widening participation and fair access, not only to its own programmes of study, but also to HE in general. We have worked with schools and colleges for decades to improve achievement of young people within the region and to raise awareness of and aspiration to a range of educational opportunities. The University has long been committed to evidence-informed widening participation and student success policy and practice which is why we embarked on this Project looking at the experience and success of students with equivalent qualifications in our institution.



Chapter 3

The changing local picture

We have set out in this Chapter an analysis of the University's data in relation to equivalent qualifications students. Annex 1 includes further detail on the data categories used

Admissions data – applications and entry

Data provided by the University's Student Recruitment & Admissions shows that there has been an increase in full-time undergraduate home applications where the applicant holds at least one BTEC (from 5.8% in 2015/16 to 7.5% in 2017/18).

Further analysis indicates that applicants studying BTECs only are more likely to accept their offer (43% compared with 27% for those with BTEC and A/AS level and 28% for those with other qualifications), and are more likely to achieve the entry requirements (89% compared with 73% for those with BTEC and A/AS level and 74% for those with other qualifications). However, applicants with BTECs only are marginally less likely to have registered by 1st December (common university census point) in the academic year of entry (91% compared with 94% for those with BTEC and A/AS level and 97% for those with other qualifications).

Population data – student registrations and outcomes

The data below shows students studying at the University as a population snapshot for that year of study. A student who studied at the University for three years would appear in the data three times. As such this is not cohort data. Data is represented as FPE (full person equivalent). See Annex 1 for further details on the data used within this Report.

Table 1 displays prior qualification recorded for each year in FPE numbers across the University. The numbers of students taking A level only for 2011 as compared to 2017 is relatively stable, 13,437 students in 2011 compared to 13,443 in 2017. BTEC only, however, has more than doubled from 202 in 2011 to 412 in 2017 and the largest change can be seen in numbers of students entering the University with a combination of A level and BTECs, which has risen from a small group of 36 in 2011 to 377 in 2017.

	2011	2012	2013	2014	2015	2016	2017
A level only	13437	12821	12837	12877	13443	13762	13443
A level & BTEC	36	81	149	228	279	339	377
BTEC only	202	213	259	293	336	394	412
Access course³	202	126	146	202	240	241	250
Other	1293	1182	1141	1024	981	965	1049

Table 1 UK home undergraduates

³ Access course refers to the Access to HE Diploma.

Figure 1 provides a visual representation of the numbers of students studying at the University in each registration year by prior qualification. The % share of prior qualifications held by those with an A level only is decreasing over time.

All prior qualification types by %

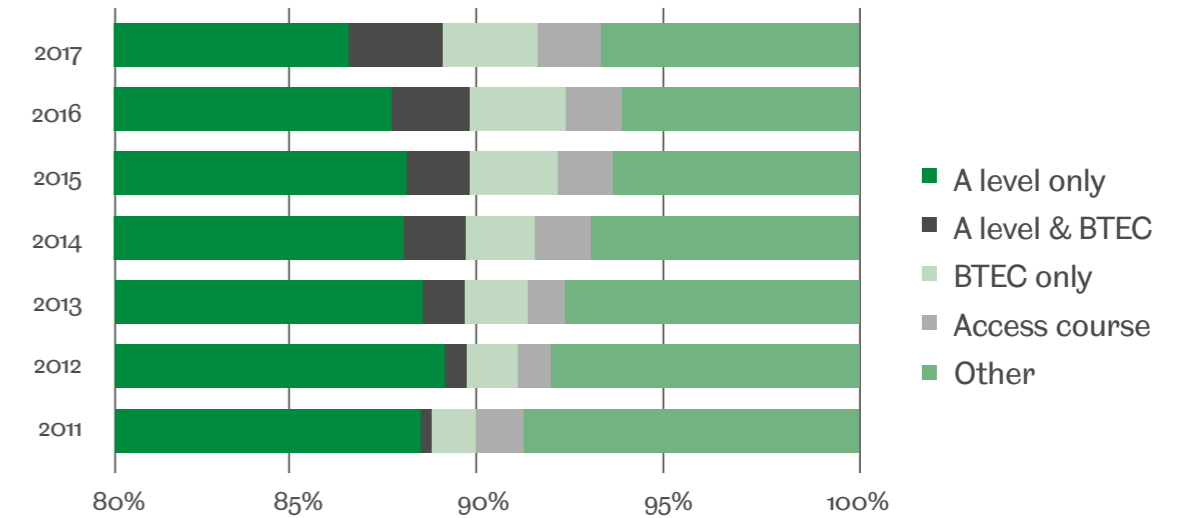


Figure 1 Entrant qualifications to TUoS

Prior qualifications and personal characteristics of TUoS students

This section explores prior qualifications analysing comparisons between students with BTEC only and students with A level and BTEC. Therefore, all other qualifications have been excluded from the analysis below.

This section explores students' prior qualifications across a series of personal characteristics including: BME, accessing Disabled Students' Allowances (DSA), from a low-participation neighbourhood (LPN), and sex. Figure 2 demonstrates that in comparison to A level and BTEC the percentage of students who entered the University with BTEC only has substantially reduced over time. At the same time, the percentage of students who entered the University with A levels and BTEC combined substantially increased during 2011-2013 and has remained at approximately 50% since 2014. This could be due to changes in entry requirements and changes in the University's programme portfolio. The differences between BME and non-BME students who entered the University with A levels and BTEC combined compared to BTEC only were the largest before 2014, with a higher percentage of BME students entering with BTEC. However, these differences have reduced and remained stable since 2015.

Percentage of students who entered HE with A level & BTEC, or BTEC only between 2011-17, split by BME

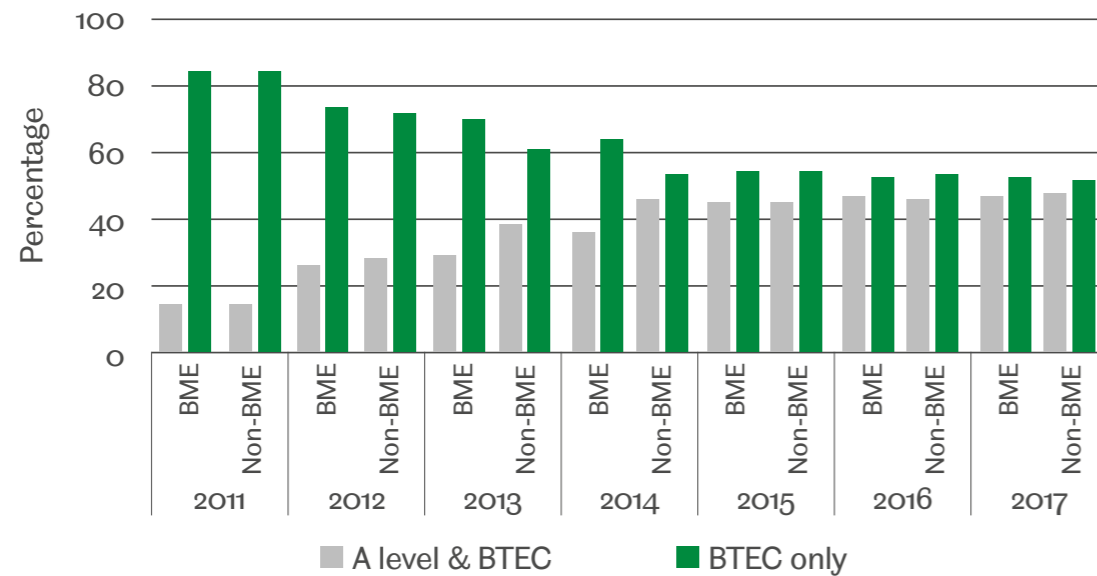


Figure 2 Entrant qualifications to TUoS A level & BTEC and BTEC only split by BME

Figure 3 mimics the trend for a reduced number of students entering the University with BTEC only and a rise in the number of students entering with A levels and BTEC combined over time. Since 2013, there has been a higher percentage of non-LPN students with A levels and BTEC qualifications compared to LPN students and this difference has gradually increased over time. Similarly, and since 2013, there have been higher percentages of LPN students with BTEC only compared to non-LPN.

Percentage of students who entered HE with A level & BTEC, or BTEC only between 2011-17, split by LPN

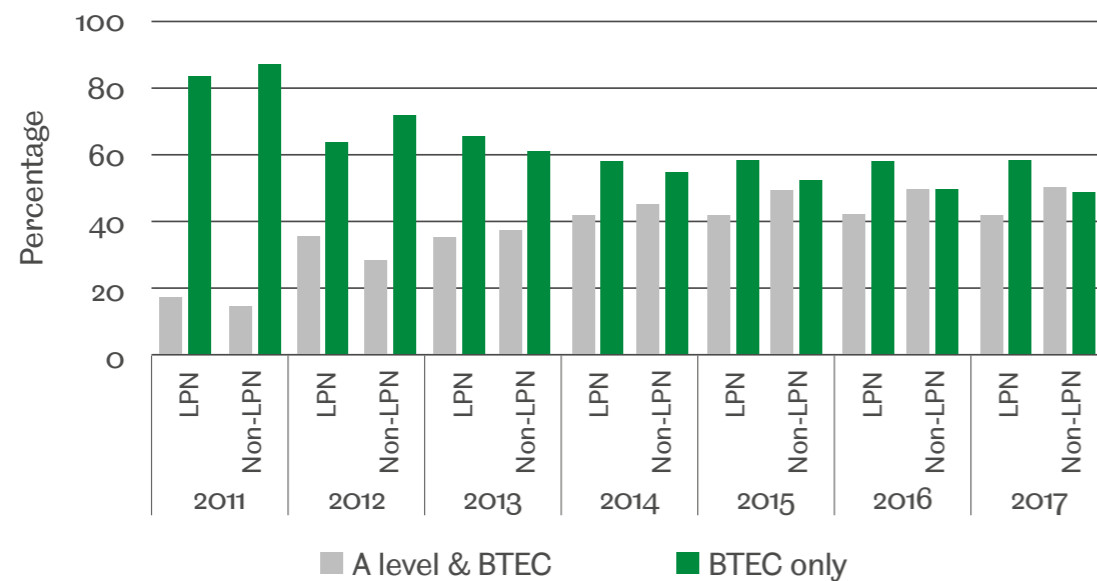


Figure 3 Entrant qualifications to TUoS A level & BTEC and BTEC only split by LPN

Figure 4 demonstrates that a higher percentage of female students entered the University with A levels and BTEC combined compared to male students, but in 2017 the reverse was true. Similarly, there were higher percentages of male students with BTEC only, but in 2017 the percentage of students with BTEC only was highest for females.

Percentage of students who entered HE with A level & BTEC, or BTEC only between 2011-17, split by sex

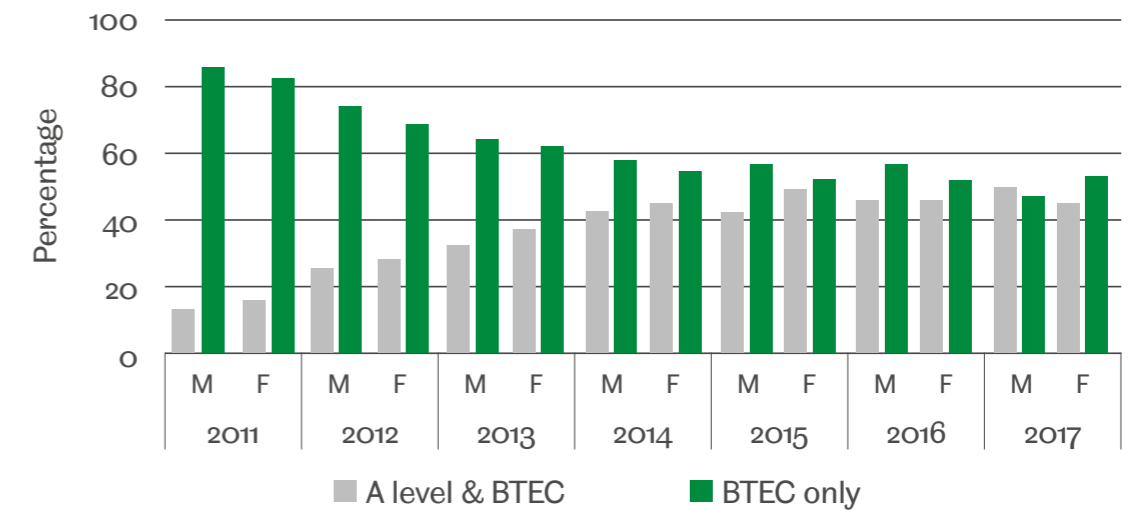


Figure 4 Entrant qualifications to TUoS A level & BTEC and BTEC only split by sex

Unlike the personal characteristics discussed so far, the trend for DSA and non-DSA students with A levels and BTEC combined or BTEC only has not been linear. Figure 5 demonstrates that since 2013, there has been a higher percentage of non-DSA students with A levels and BTEC combined compared to DSA students. Similarly, a higher percentage of DSA students have had BTEC only since 2013, compared to non-DSA students. Between 2011-2015, the difference between DSA students with A levels and BTEC combined compared to BTEC only was large and relatively stable. This difference reduced slightly in 2016 and again in 2017. By contrast, the difference between non-DSA students with A levels and BTEC combined compared to BTEC only has steadily reduced over time with minimal difference in 2017.

Percentage of students who entered HE with A level & BTEC, or BTEC only between 2011-17, split by DSA

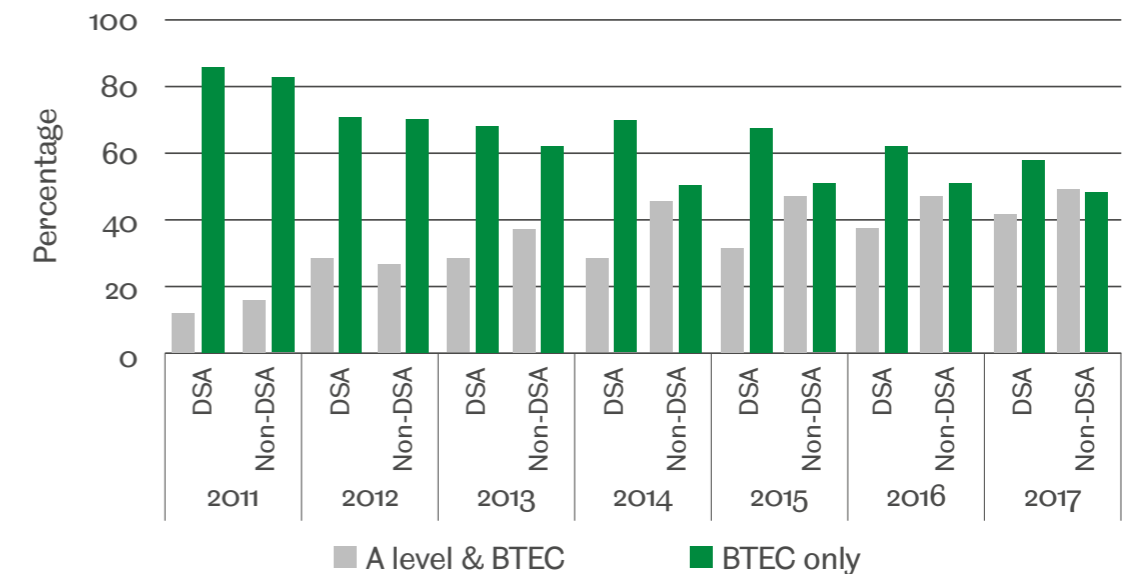


Figure 5 Entrant qualifications to TUoS A level & BTEC and BTEC only split by DSA

Prior qualifications and degree outcomes of TUoS students

This section explores the trends in degree outcomes during 2011-2016, for students who entered the University with A levels only, A levels and BTEC combined, or BTEC only. The percentages have been calculated based on the number of students who obtained a First or 2.1 (termed 'good degree') compared to those who obtained a 2.2 or a Third, for each given year. Figure 6 presents the percentage of students who entered TUoS with A levels only, A level and BTEC combined, or BTEC only and obtained a 'good degree' during 2011-2016. Figure 6 demonstrates that the percentage of students who entered the University with A levels and obtained a good degree has steadily increased over time. The percentage of students who entered the University with BTEC only and obtained a good degree has also increased over time, but to a lesser extent than students with A levels only. More students who entered the University with A levels and BTEC combined qualifications obtained a good degree compared to students who entered with BTEC only, however, the trend is not linear. This suggests that additional factors impact on students' degree outcomes if they enter the University with A levels and BTEC combined compared to either A levels only or BTEC only. Overall, the percentage of students who obtained a good degree during 2011-2016 is consistently higher for students who entered the University with A levels only.

The concluding remarks set out our summary points from this section.

Percentages of students who entered HE with A level only, A level & BTEC, or BTEC only and obtained a 'good degree' during 2011-2016

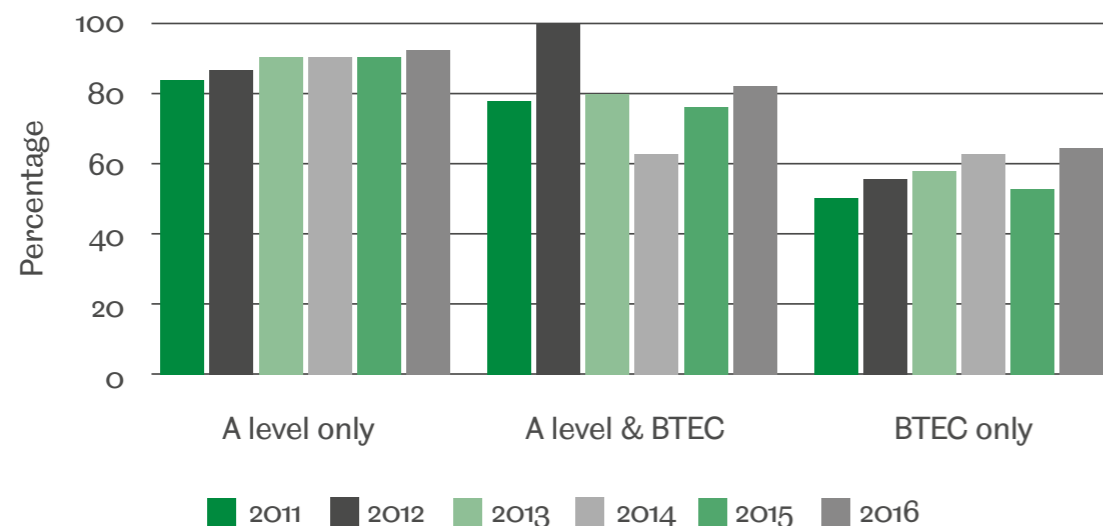


Figure 6 Degree outcomes for TUoS students who entered with A levels only, A levels & BTECs, or BTECs only, between 2011-2016⁴⁵

⁴ Note that 'good degree' includes students who obtained a First or 2.1 compared to students who obtained a 2.2 or Third. These calculations do not include students who were still registered during a given year, nor do they include students who completed and obtained a degree outcome classified as Pass, Merit, or Distinction, which predominantly relates to the Faculty of Medicine.

⁵ In 2012 there were 7 students that entered TUoS with A level & BTEC combined and obtained a First or 2.1.

Personal characteristics and outcomes

For wider context, this section considers the whole student population at TUoS.

We continue to explore degree outcomes between 2011-2016, but in relation to a series of personal characteristics including: BME, DSA, LPN and sex. In line with the previous section, in terms of degree outcomes we focus on the percentages of students who obtained a good degree (i.e. a First or 2.1) compared to students who obtained a 2.2 or a Third.

Figure 7 demonstrates that the percentage of non-BME students who obtained a good degree has gradually increased over time and is consistently higher than BME students. The University broadly reflects national trends on degree attainment. The difference between BME and non-BME students obtaining a good degree has broadly remained stable over time. Similarly, there have been slight changes in the number of BME students obtaining a good degree over time, but the overall percentage of BME students obtaining a good degree has remained at approximately 70% since 2011. By contrast, the number of non-BME students obtaining a good degree has increased gradually from 80% to 90% in the last 6 years.

Percentages of students who obtained a 'good degree' between 2011-2016, split by BME

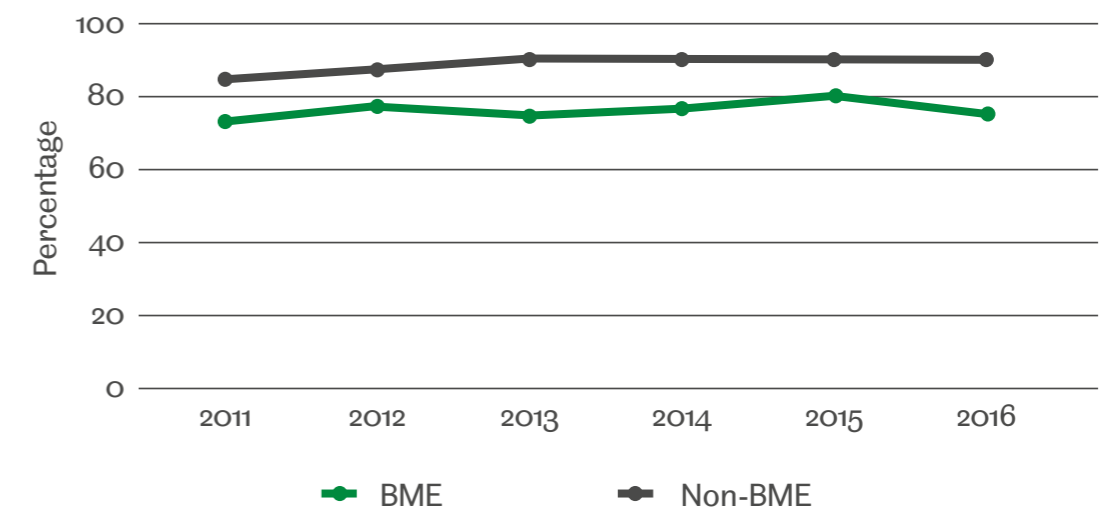


Figure 7 Degree outcomes for TUoS students split by BME

Figure 8 demonstrates that the percentage of non-DSA students obtaining a good degree has gradually increased over time; increasing from approximately 80% to 90% in the last 6 years. Before 2014, there was a higher percentage of DSA students obtaining a good degree compared to non-DSA students, but the reverse has been true since 2015. Similarly, the trend for DSA students obtaining a good degree steadily increased between 2011-2013, reaching 90% in 2013, but this reduced to approximately 80% in 2015 and remained stable in 2016.

Percentages of students who obtained a 'good degree' between 2011-2016, split by DSA

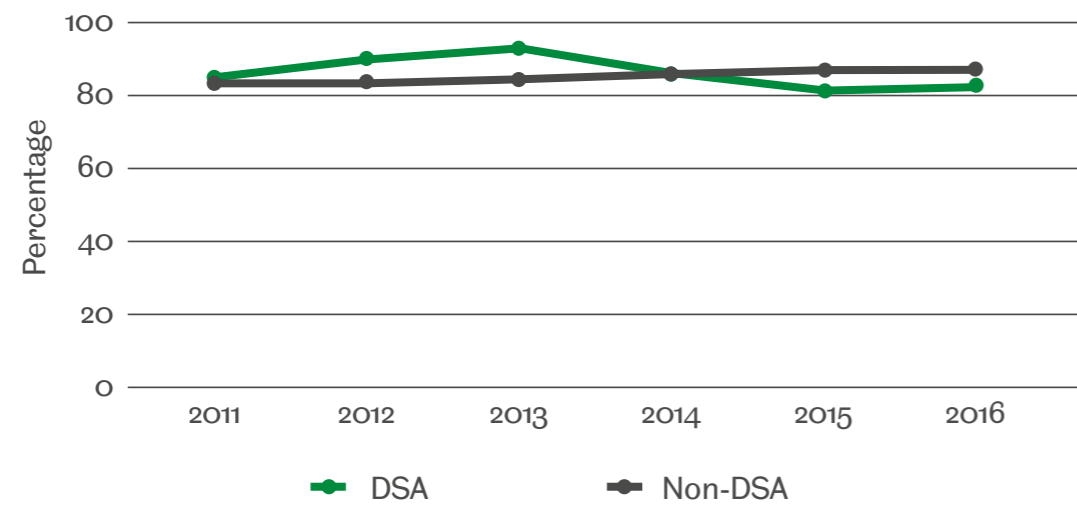


Figure 8 Degree outcomes for TUoS students split by DSA

The percentage of non-LPN and LPN students obtaining a good degree has slightly increased over time (Figure 9). However, the difference between the percentage of LPN students and non-LPN students has been relatively stable over the last 6 years with consistently lower percentages of LPN students obtaining a good degree compared to non-LPN.

Percentages of students who obtained a 'good degree' between 2011-2016, split by LPN

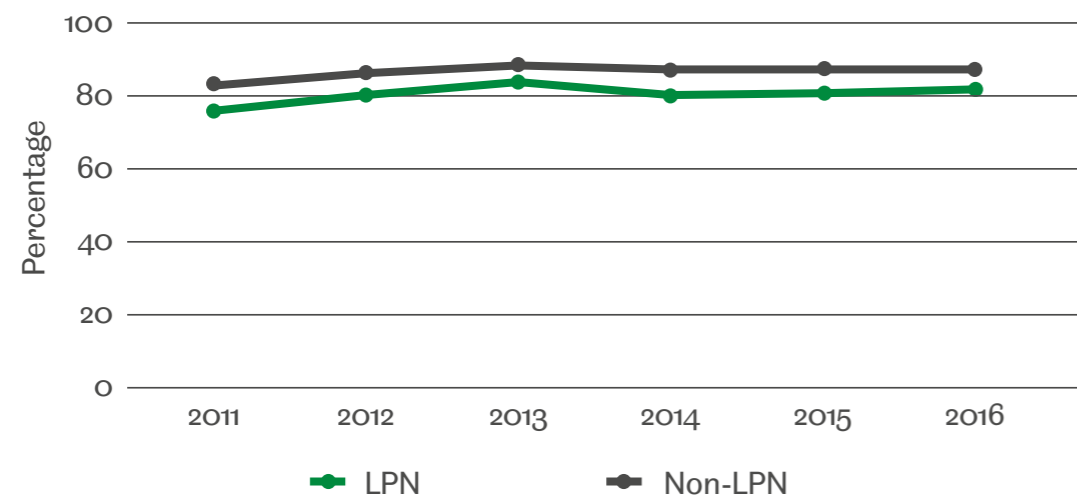


Figure 9 Degree outcomes for TUoS students split by LPN

Figure 10 demonstrates that the percentages of male and female students obtaining a good degree has gradually increased over time. The difference between male and female students obtaining a good degree is slight, but has been consistent with a higher percentage of females obtaining good degrees compared to males overall.

Percentages of students who obtained a 'good degree' between 2011-2016, split by sex

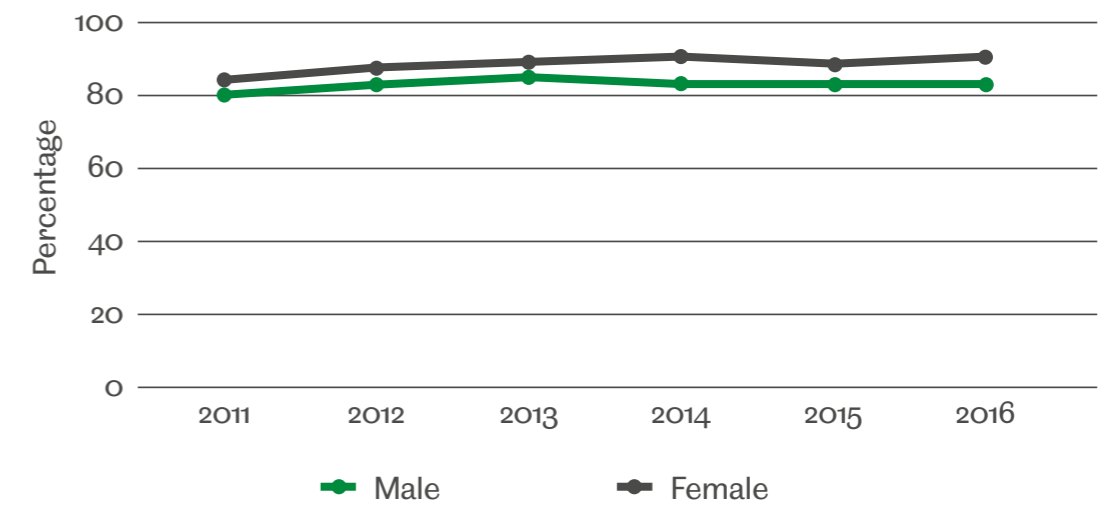


Figure 10 Degree outcomes for TUoS students split by sex

Faculty results – student numbers

This section highlights interesting differences within Faculties which also show subject areas where addressing barriers to success might be more key. A level only as a percentage of prior qualifications is decreasing and equivalent qualifications are increasing in all Faculties with the exception of the Faculty of Engineering where A level only is steadily increasing. The lower number of equivalent qualifications students within the Faculty of Engineering and the Faculty of Science may be due to requirements for compulsory A level subjects such as Mathematics and Sciences within these degrees. Conversely, subjects within the Faculty of Social Sciences are less likely to require compulsory subjects at A level, for example studying a degree in either Politics or Law does not require an A level in the requisite subject. Additionally, the Faculty of Science and the Faculty of Engineering may require specific BTEC subjects e.g. Applied Science or Applied Core Maths.

Figure 11 shows the growth of BTEC only and A level with BTEC combined over time on a faculty basis. The Faculty of Social Sciences has experienced the largest percentage increase up 7.5% from 1.9% of students in 2011 to 9.4% in 2017.

% FPE of BTEC only and A level & BTEC students by Faculty

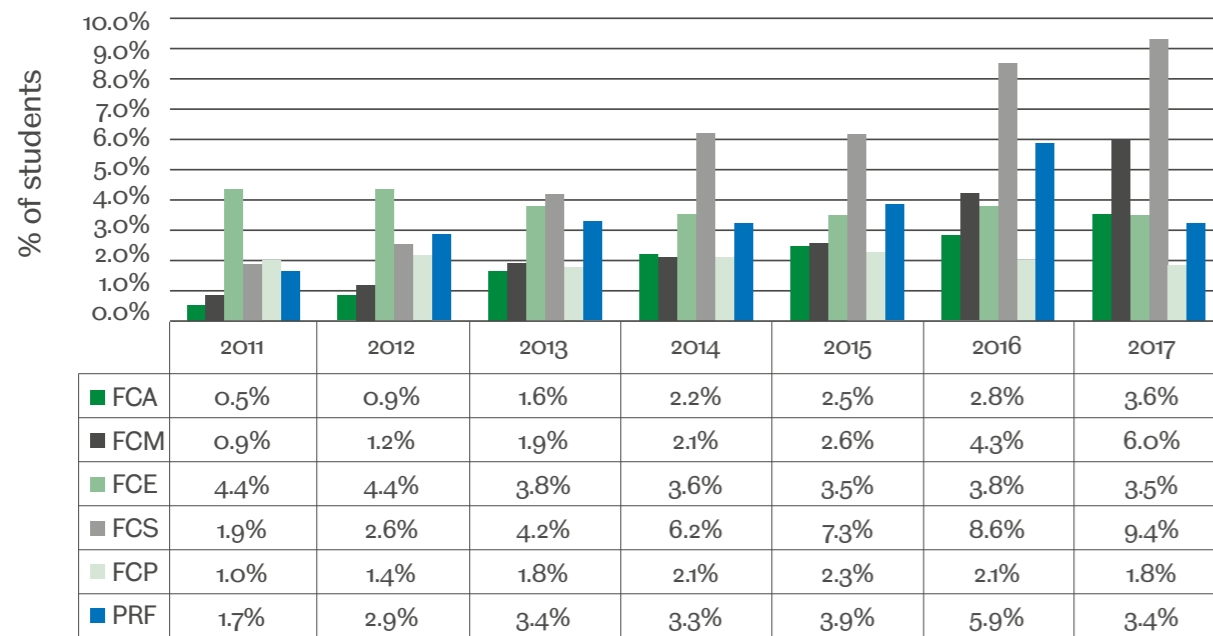


Figure 11 BTEC only and A level & BTEC combined growth within Faculties 2011-2017⁶

Departmental differences

Across our Faculties there is a range in terms of the intake of students with equivalent qualifications (BTEC/A level and BTEC). Over the life of the Project it became apparent that Faculty level figures may disguise interesting developments at the smaller academic Department-level. Analysis of the University's Departmental data has shown dramatic differences in the number of students entering the University with equivalent qualifications by department. We have included some examples of differences.

Faculty of Medicine

From 2011-2017 the majority of the Faculty of Medicine students holding at least one BTEC were studying within the School of Nursing and Midwifery. Human Communications Sciences hosts the second highest proportion of students with either BTEC only or A level and BTEC combined as a prior qualification (Figure 12).

2011-2017 % of BTEC only and A level & BTEC students within the Faculty of Medicine by Department

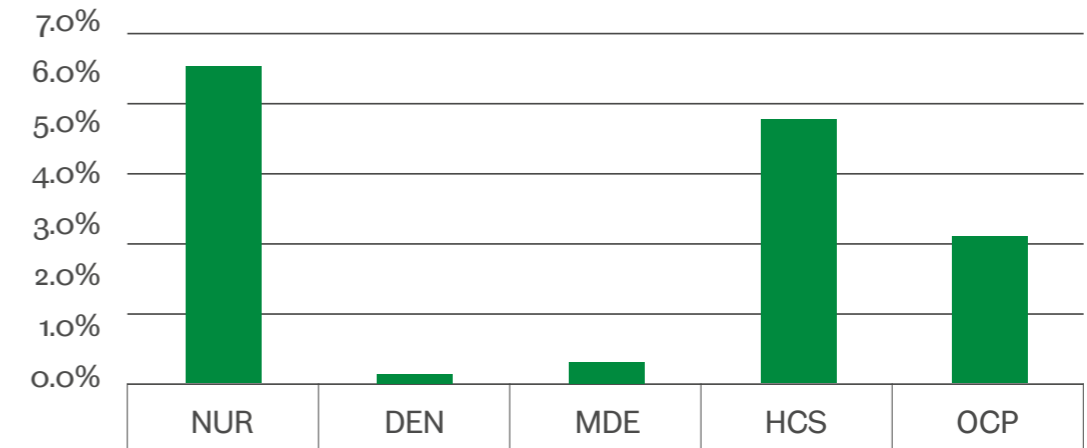


Figure 12 BTEC only and A level & BTEC comparison with Faculty of Medicine⁷

Faculty of Social Sciences

The Faculty of Social Sciences has been shown to host the majority of students each year with either BTEC only or A level and BTEC combined as a prior qualification. It is therefore worth further exploration of the detail within this Faculty (Figure 13).

2011-2017 % of students with BTEC only and A level & BTEC in FCS

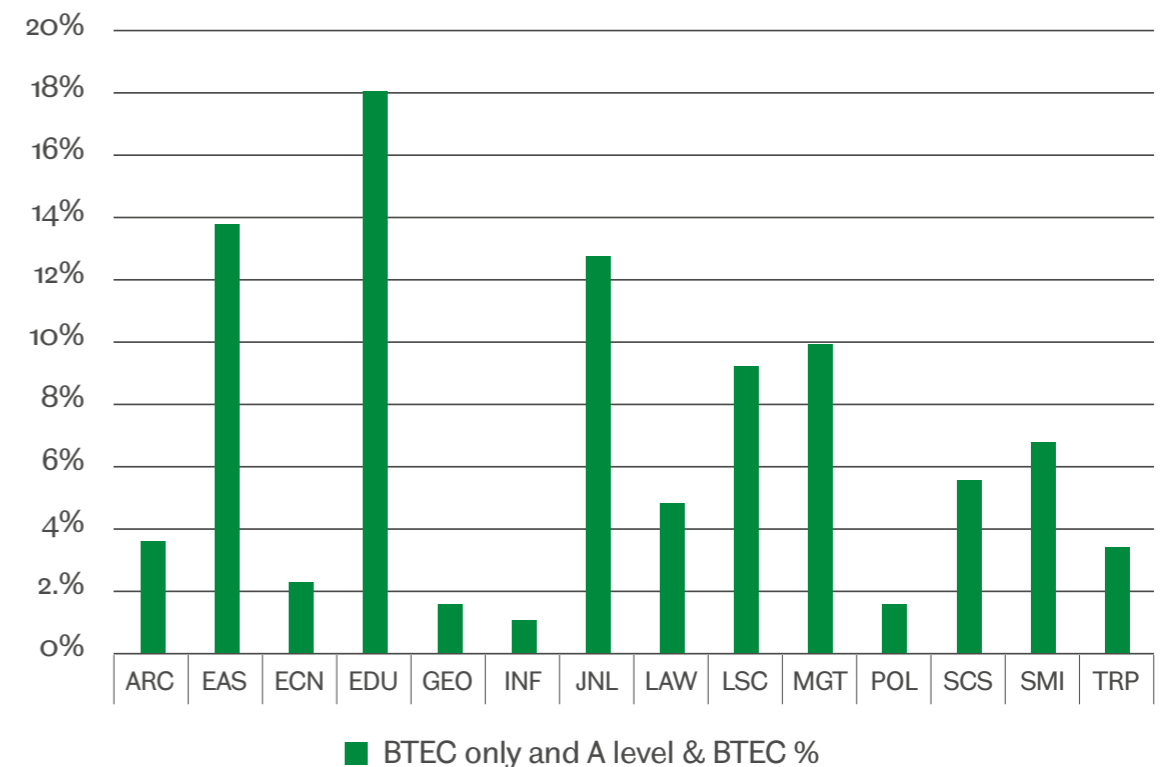


Figure 13 BTEC only and A level & BTEC comparison within Faculty of Social Science⁸

⁶FCA (Faculty of Arts and Humanities); FCM (Faculty of Medicine, Nursing and Dentistry); FCE (Faculty of Engineering); FCS (Faculty of Social Sciences); FCP (Faculty of Science); PRF (Professional Services) which includes ELTC (English Language Teaching Centre), MLTC (Modern Languages Teaching Centre), DLL (the Department for Lifelong Learning).

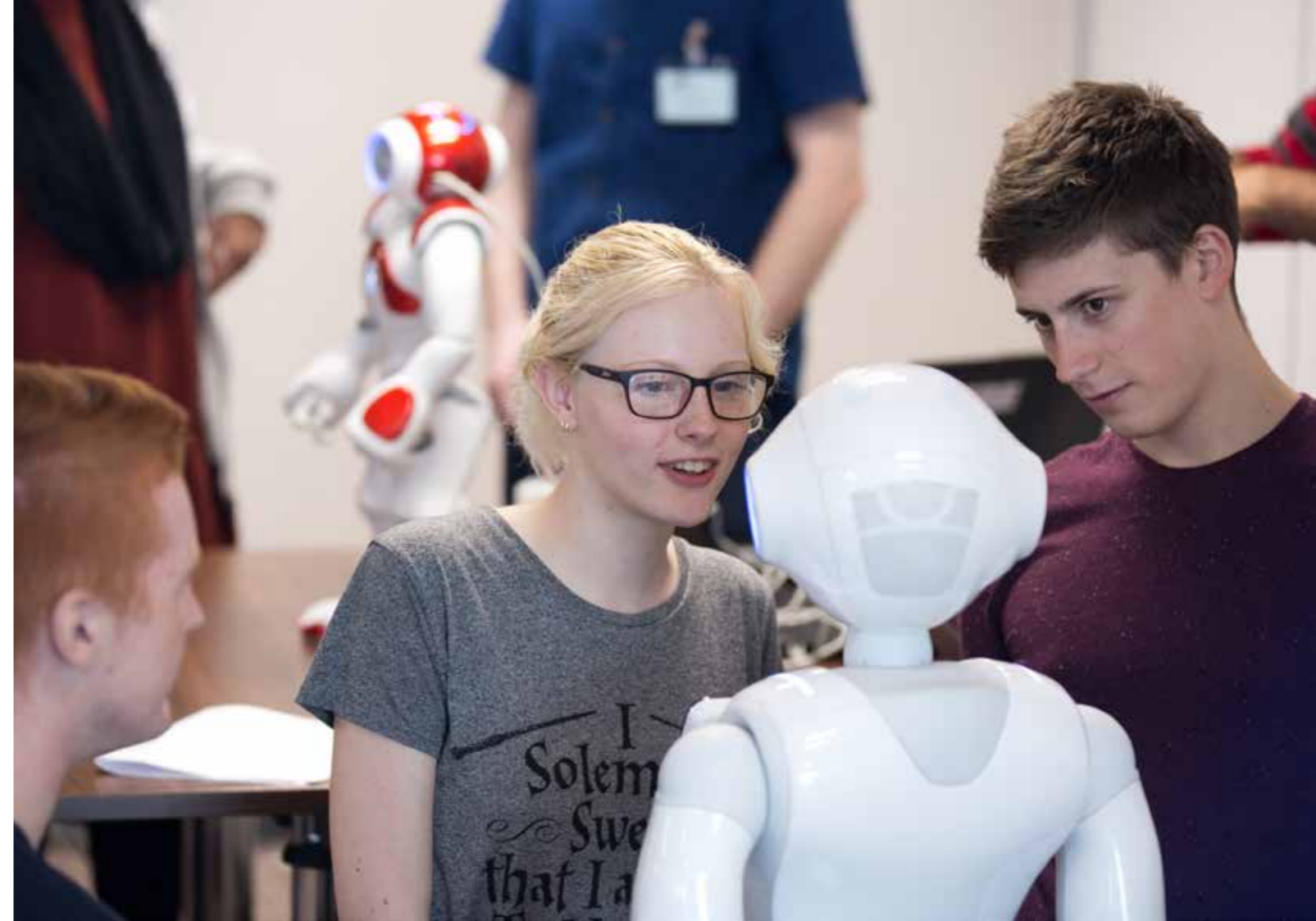
⁷ NUR (The School of Nursing and Midwifery), DEN (Dentistry), MDE (Medicine), HCS (Human Communication Sciences), OCP (Department of Oncology and Metabolism).

⁸ ARC (School of Architecture), EAS (School of East Asian Studies), ECN (Department of Economics), EDU (School of Education), GEO (Department of Geography), INF (Information School), JNL (Department of Journalism Studies), LAW (School of Law), LSC (Department of Landscape), MGT (Management School), POL (Department of Politics), SCS (Department of Sociological Studies), SMI (Sheffield Methods Institute), TRP (Department of Urban Studies and Planning).

In FPE numbers the Management School host the largest number of students with either BTEC only or A level and BTEC combined as a prior qualification (458.5 from 2011-2017). However, as a percentage of the student population within the Faculty, the School of Education hosts the largest proportion of such students (18%), followed by the School of East Asian Studies (14%).

Concluding remarks

The University's own data broadly reflects the national data, as we might expect. The interesting points concern the differences between Faculties, potentially driven by course entry requirements and also specific cultures within each subject area. A history of a diverse intake in terms of qualifications, and the labour market subsequently supporting such diversity, may lead to self-fulfilling trends of continuing to accept diverse qualifications. The opposite may also apply. The University also broadly reflects national trends on outcomes, where students entering with a BTEC and A level and BTEC combined have poorer degree outcomes, they are less likely to obtain a First or 2.1.. However, there has been slow progress in closing the degree attainment gap over time.



Chapter 4

The Project – what did we do?

*This Chapter sets out the Project's aims,
its development and activities*

The University made a decision in Spring 2016 to explore the transition experience of equivalent qualifications students in the institution. The changing nature of the intake to HE and in the institution itself, reports such as UCAS's Progression Pathways (UCAS, 2016) and internal data and anecdotal evidence prompted the decision. This was also in line with the University's commitment to widen access to HE and to recognise talent wherever it is found. A successful application was made for Higher Education Funding Council for England (HEFCE) funding under the Catalyst Fund call "Small-scale, 'experimental' innovation in learning and teaching" for the Project "Recognising 'Discovery Learners': Making HE Pedagogies Responsive to Equivalent Qualifications". The funding supported a broader, richer project. This Chapter and Chapter 5 provide a guide on good practice in supporting equivalent qualifications students' entry to HE.

The funded Project formally ran from November 2016 to April 2018.

Project aims

1. To better understand equivalent qualification routes in their own right; how students become successful in those routes and how we support transition for students to be successful.
2. To better understand the institutional population of BTEC students. Including performance indicators such as application rates, degree outcomes and continuation rates.
3. To provide Project partners (schools/colleges and University Departments) with the resources to carry out innovations in local design to support the BTEC student journey.

Project development

The key actions to deliver the aims were as below:

1. To form a diverse Steering Group of involved and engaged partners to act as expert advisors and enablers of Project activity.
2. To identify academics and disciplines in each Faculty, where further exploration of BTEC qualifications would be relevant and engagement in Project activity would be beneficial.
3. To identify and form a network of equivalent qualification providers in the region (schools and colleges) that were willing to enter into a co-operative partnership with the University and would contribute to the Project.
4. To engage with all Project partners to design, carry out and review a series of curriculum innovations.

Identifying our partners

In the first stage of the Project development, the work to find and recruit a team of local national and internal partners, with an interest in equivalent qualifications, began.

Within the University this involved approaching and selecting professional service teams and academic Departments to engage with the Project aims and to carry out Project activities. Academic Departments were approached based on existing numbers of students holding equivalent qualifications, or on indicators that equivalent qualifications may increase in these Departments in the future. The following academic Departments at the University agreed to take part in the Project.

University Faculty	Participating Departments
Arts and Humanities	Department of Archaeology, Department of Music
Engineering	Foundation Year
Medicine, Dentistry and Health	Academic Unit of Ophthalmology & Orthoptics, School of Nursing and Midwifery
Science	Department of Biomedical Science, Department of Molecular Biology and Biotechnology
Social Sciences	Department of Journalism Studies, School of Law, Management School, School of Architecture

Table 1 TUoS partner Departments in the Project

Working alongside Barnsley College (as named Project lead in the bid) and partners within our 'keep in touch' Education Stakeholder Group, we approached a range of local schools and colleges, specifically those specialising in BTEC provision, who were asked to enter a co-operative partnership.

Our partner schools included

- Barnsley College.
- King Egbert School.
- King Edward VII School.
- Longley Park Sixth Form College.
- Meadowhead School Academy Trust.
- The Sheffield College.

A partnership with the private provider and owning body for BTECs, Pearson, was also developed. It has been a valuable resource to include Pearson in the Project in order to provide context for past and future developments to technical education pathways. We also asked the Higher Education Progression Partnership (HEPP) to join the Steering Group due to its significant expertise in this area.

Initial Project activity

With our partners we undertook a series of initial activities to develop our understanding and to inform subsequent curriculum innovations. We:

- Conducted work to understand the national picture, to understand our students and to understand each partners' position and to develop Project ideas.

- Matched academic Departments with a school or college, where the school or college was offering an equivalent qualification to A levels which was a prerequisite or potential prerequisite for a discipline of study within the Department, to enhance dialogue and encourage a long-term relationship.
- Carried out exploration visits between school/college staff and University academic staff; staff involved completed reflective logs of the pedagogical experience observed.
- Curriculum innovation workshops were held between University staff and partner schools/colleges. These events were critical in helping us to define and develop key themes which included: independent learning; critical thinking; research skills; digital literacy and academic writing skills.
- The information gathered at the curriculum innovation workshops was used to design the six Project activities.

The six Project activities

With our partners, the University initiated a number of activities to test what might work to support the transition of equivalent qualifications students.

1. School/college and University observations

Observation of classes, respectively, in partner schools/colleges and in the University was undertaken by University/schools/college staff. These reflective sessions allowed partners to develop a better understanding of each other's practice. On the one hand of how equivalent qualifications are delivered in schools/colleges and on the other of how these students will learn and the curriculum developments they will experience once they enter the HE environment.

2. Equivalent Qualifications Summer School

A total of 180 University applicants in the South Yorkshire region identified as holding a BTEC were invited to the event. In addition, all Year 12 (lower sixth) students studying a BTEC at our six partner schools and colleges were also invited. The three-day event took place over the Summer of 2017 and was designed to meet the themes identified in the curriculum innovation workshop and to equip the students with the skills needed for HE transition.

The programme included a variety of academic based sessions as well as exploration activities such as trying on virtual reality headsets, interacting with robots, a debate, a treasure hunt and a skills session on the art of paper cutting. There were 17 students who attended the Summer School (five Year 12s and 12 Year 13s).

3. Mentoring scheme enhanced promotion

Students holding BTECs and entering TUoS in September 2017 from the six partner schools/colleges were invited to take part in the University's mentoring scheme and received enhanced promotion of this service. In order to avoid singling out the students as 'other' no mention of equivalent qualifications was made in the promotion of the activity and the students were invited to the standard scheme;

no point of difference was made in the invitation and no changes were made to the service provided. 'Mentor a 1st year' is a scheme run by the student transition team to support 1st year students who would like to talk to a student who has already been at the University for at least a year i.e. an existing 2nd or 3rd year student. We looked for people who were prepared to share their own experiences of studying at the University, as students who entered with equivalent qualifications. Participation was voluntary.

4. Transition to HE Module for current undergraduates

Students in the School of Nursing and Midwifery were provided with an enhanced and new curriculum development. This pilot module has rolled out a series of lectures and seminars to all nursing and midwifery students which focuses on developing students' skills for the HE environment. The University enhanced and developed an existing module which was included in the first year of the Nursing Degree Course. The module prepares students step-by-step with study skills such as academic writing and a sense of the HE culture. Each week in the first semester a lecture is delivered and consolidated with a peer-group tutorial supported by a Personal Tutor.

5. Online library learning resource for FE students

The University Library was asked to build a new online learning environment designed for further education (FE) students considering applying to the University. The module was based on an existing HE programme, however, it was adapted and re-designed to suit the student audience. The Library consulted with staff and students in our partner schools and colleges to inquire into the required resources, both for current studies and to prepare students for entry into a Russell Group University. In response to this consultation work a bespoke collection of online tutorials, organised around the six information literacies used in academia: discovering; understanding; questioning; referencing; creating; and communicating were created. The tutorials in this pre-entry resource focus on resources students have access to before they come to university and don't assume any previous knowledge of information and digital literacy.



Figure 1 Online resource for FE students

6. Evaluation of the student experience

The University carried out interviews with focus groups of BTEC students at the partner schools/colleges to understand their experiences of studying as well as their HE perceptions, expectations and decisions. The research also considered the views of University academics.

The researcher then carried out discussions with the group of students identified as entering from our partner schools/colleges (during February/March 2017) and a follow-up discussion (during September/October 2017) after students had completed their equivalent qualifications.

Project research

Alongside the programme of activities, and the specific activity on students' experiences/academics' views, the Project also set out to conduct research to answer key questions about equivalent qualifications. We used a mixture of qualitative and quantitative methods to assess the current picture and to evaluate the impact of the Project, where that was possible. The short-term nature of the initial Project means that this research and evaluation is understandably limited in reporting of findings at this stage.

Project questions

The partnership set out to try to answer the following questions:

- How can we support students with equivalent qualifications to succeed? What is the impact of equivalent qualifications on students in terms of their progression, transition and success into/at TUoS?
- What are the key challenges faced by students with equivalent qualifications when transitioning to and then when studying at TUoS compared to those with A levels?
- Are changes required to the University curriculum to support the success of students with equivalent qualifications?
- Are changes required to University student support services to enhance the success of students with equivalent qualifications?

The Project research included the following activities:

- 1) TUoS data analysis analysing application rates, graduate outcomes and completion rates broken down by characteristics including prior qualification, faculty, ethnicity, disability, low-participation neighbourhood and sex.
- 2) Reflective logs written by University academics and school/college teachers exploring the students' pedagogical experience and curriculum design.
- 3) Interviews and focus groups conducted by a researcher with academics, potential students and current students.
- 4) Evaluation of the six Project activities, where practicable in the time frame.

Collection and analysis of quantitative data

The quantitative element of the study was intended to establish an understanding of the patterns of retention and success of equivalent qualifications students at TUoS. Data from the student records relating to all those who have enrolled and studied at TUoS since 2011 has been collected and analysed in addition to admissions cycle data for the previous three years.

Ethical considerations

This Project was subject to formal ethical approval by the University and the ethical approval documentation was shared with each participant institution. Written informed consent was obtained before the start of each interview for the interviews and focus groups. Participants were provided with a hard copy of the information sheet and consent form. The researcher reviewed the content and purpose of the research before the interviews and explained the guarantee of anonymity and confidentiality, their right to withdraw from the Project at any time and issues of data protection. Rights to anonymity and confidentiality were applied at all stages of the research. Data from the Project will be processed and stored with strict adherence to data protection requirements and in accordance with the University of Sheffield guidance on Anonymity, Confidentiality and Data Protection.



Chapter 5

The Project – what did we find?

This Chapter sets out the findings from the six activities undertaken in the Project

Initial start-up activity was undertaken in the Project from Spring 2016, with core Project work starting from November 2016. As described in Chapter 2 there were a range of deliverable actions within the Project. We were only able to evaluate some of these deliverable actions, and in a limited form, due to the short time-frame of the Project (it was not a longitudinal cohort study). This Chapter captures learning from the Project although we must set out the caveat that the short-term nature of the Project and the activities, in terms of longer cohort studies, makes it difficult to ascertain direct or indirect impact as a result of the activity. In Chapter 6 we set out our conclusions from the Project and recommendations. We did not take a strict 'cohort' approach in terms of these activities and students participating from our partner schools/colleges due to challenges in data collection and tracking. We know that approximately 70 students from our partner schools/colleges, with a BTEC equivalent to one A level, were new entrants to the University in 2016/17. The majority of these students attended courses in Health and Human Sciences and Nursing. Of these entrants, 67 are continuing at the University and three have withdrawn.

1. School/college and University observations

Staff from our partner schools and colleges were encouraged to attend and observe TUoS teaching and share reflective logs of their experience. In turn, Department academics also visited partners' classrooms. A number of themes were identified from the observation reports the staff returned. Below is a summary of the findings as described by the observers.

Education structure and contact

FE level student educational structure and contact was daily, close and personal. At FE the school day is highly condensed and there is little free time for students to conduct independent activity, in contrast to HE where contact hours vary widely and students may not receive contact every day and are expected to plan their own study activity.

Contact at FE is highly personalised, BTEC students were known by their teachers, as was the subjects the students were studying. They were known as individuals.

In contrast, in HE lecture sizes were often found to be very large (100+ students) and, depending on the course, academics were unlikely to know students by name and would be unlikely to know of any external modules a student may be attending. Although, to note, the student experience work described in this Chapter provides some contrast with this.

In a school environment there may be additional interventions in the student's timetable agreed between the parents and school, this may be academic such as extra Mathematics support, or relate to discipline. In HE, additional interventions would not be discussed with parents, owing to the age of the students. Students may agree to additional support such as MASH (Maths and Statistics Support) but the onus is on the student to arrange this.

Delivery

It was found that in FE there were varied forms of active-learning in small group contexts, in contrast to the much larger lecture style delivery aimed at a non-interactive audience in HE. However, HE class sizes were found to reduce and become more personalised at the seminar group level.

FE classroom teaching of small groups allowed for personalised contact with consolidation exercises to embed learning. Observers felt that at FE there was close instruction in terms of the task, which was not observed frequently at HE.

Research

In FE, observers felt that there was little reference made to extrinsic sources and that the majority of research was web based.

In HE, observers found a strong emphasis on research, the majority of which was conducted in the students' own time and may require visiting the University Library to find physical resources. There was an onus on the student to already know where to find source information, rather than be given directions from the lecturer.

Assessment and feedback

In FE, assessment was found to be formative, flexible and on-going with detailed and regular feedback. Students were typically given an assignment every few weeks, undertaken away from the classroom and then marked and returned to the student with detailed feedback.

In FE, 'turn-around' for marking was much faster than in HE. Schools often had set guidelines for feedback, for example, feedback must be given within 7-14 days of an assessment. Whereas, in HE feedback took much longer to be returned to students and although there were some guidelines these were often department specific, as such with differences in approach.

Observers found that, in the FE lessons observed, students were working towards an external exam so the programmes featured regular mock exams. Should the students not pass, a second opportunity could be given.

In HE, there were several modules throughout the year containing one or more assignments and exams within each module. Assessment was modularised and did not usually culminate in a final exam with a significantly higher weighting than any other module in the course. It is unusual in HE to allow for a retake of an exam or an assignment, although students can apply for extenuating circumstances or additional time.

In HE, there is an expectation that assignments include referencing and citation which will be assessed. Accurate referencing had less significance in FE; however, BTEC students were encouraged to research and reference materials more than A level students.

Transition

Observers felt that given what they had seen, key points for transition from FE to HE would be: equipping students with research and referencing skills; encouraging critical thinking, including the interrogation of resources; and enabling students to learn independently, including planning their own time effectively.

2. Equivalent Qualifications Summer School

An evaluation exercise was carried out on the Summer School and informal feedback from students who participated has also informed our view about the impact of the event. Although it was a small event, involving 17 students, the feedback from students was highly positive. Additionally, we saw a direct recruitment impact in terms of the Year 13 students, with 11 of the 12 students ultimately attending the University.

The evaluation asked students about their understanding of academic concepts before and after the event, and measured the extent of knowledge/conceptual acquisition over the intervention; it also assessed 'confidence' levels. This included academic concepts such as 'hedging language'; knowledge of the name of the University's catalogue; and confidence in terms of carrying out an effective search for information and starting a HE course.

Prior to the event we asked participants to define key terms and concepts in the academic skills/learning domains via multiple choice questions. We also asked participants to rate their level of agreement with a set of confidence indicators in the academic skills/aptitudes/HE preparation areas. All evaluation measures were developed in collaboration with the intervention leads and designed to directly reflect the intended outcomes of the scheduled sessions.

As there were different numbers of students attending at the start and end of the Summer School the end results should be considered as indicative. There was a marked positive difference in understanding of concepts after the event; and there was also a significant positive impact on reported confidence levels. Evaluation outcomes suggested that the students were able to define all but one of the key academic concepts more reliably after the Summer School than before. We also saw substantial increases in reported agreement with self-confidence in group work, argument development, communication and research skills and HE readiness.



Photo 1 Equivalent Qualifications Summer School

3. Mentoring scheme enhanced promotion

Due to the internal relationships built and discussions held over the lifetime of Project this will be the first year where comments made in the mentoring scheme evaluation by equivalent qualifications students will be separable from the general populace responses. This will allow us to assess any differences in experience for students with equivalent qualifications. The mentoring survey will take place at the end of the academic year 2017/18.

4. Transition to HE Module for current undergraduates

The evaluation for this Module covered a small number of students (five) who undertook the Module (out of 68 students in total). Only one of the five students had entered the University with a BTEC, the others entered with an Access to HE Diploma. It involved a series of case study interviews, reflecting on their experiences of the 'Studying in Higher Education' Module, delivered as part of the BMedSci Health and Human Sciences Course.

Overall, the students involved in this evaluation were surprised but mostly pleased to have it as part of the course. Despite any reservations about it potentially repeating preparatory work already undertaken in previous studies, the general feeling was that it was a useful refresher and helped to prepare students ahead of their assignments. It was also noted that students who had not attended an Access or Foundation course were less likely to be familiar with the material, and so the course would be particularly useful for them. The seminar format was a big success, as was the friendliness of tutors and free course books given out. However, the students did note that they were not sure how broadly held these views were, and it may be that other students deem the Module less valuable. As a whole, the students had greater praise than criticism for the Module, and recommended that it continue in the coming years. The following summarises their suggestions for what should continue with the Module and what could be possibly amended:

Positive responses to the Module:

- Extensive praise for how approachable, helpful and knowledgeable tutors are.
- Confident that feedback available if asked – this is detailed and implementable.
- Really like seminar format – helps to make networks, ask questions and hear other ideas.
- Skills learned are transferable across all modules and assignments.
- Critical Thinking and Study Skills textbooks well received – all appreciated and valued.
- Helpful to see example essays with marking and criteria prior to submission.
- Can easily catch up on missed lectures as available online and tutors accessible.
- Structure of Module has good linear progression – clearly builds up to assignments.

Suggestions for improvement/additional content:

- Clearer guidance in seminars about writing style/tone e.g. 1st/3rd person – some discrepancy between the advice given by tutors across modules left students seeking clarification.

- Perhaps more information about mental health/coping with workload/time management e.g. strategies and re-signposting to services as term progresses.
- Students like and appreciate that the option for plans is available but commented that drafts feel obligatory – would rather didn't have to as this can add pressure.
- Lack of consensus over value of the homework tasks – some saw as unnecessary addition but others believed to be useful tool.

5. Online library learning resource for FE students

This resource was developed at the end of the Project and we will assess its impact but this currently falls out of scope of this Report.

We believe the benefit of this resource is that it is specifically focused on supporting student learning before university. This not only enhances current studies but also allows students to arrive at university feeling confident to participate in their HE studies. The online, open and flexible nature of the resource allows school/college tutors to embed tutorials into their own learning and teaching activities and allows students to revisit the offer at any point in their learning. All the resources are colour coded and are built upon as students enter undergraduate studies, allowing for a seamless transition into HE.

6. Evaluation of the student experience

Dr Zoe Baker led this research and is the main author for this section. A robust research study of BTEC students' experiences within the University, and academics' views of BTECs was undertaken as part of the Project. This strand of the work was undertaken in particular to inform the University's understanding of how students feel when they start studying and moving into a more traditional academic setting, and how the University supports diversity in its student population.

A summary of findings is below, but a fuller outline of findings is available on request. This summary includes both the students' and academics' perspectives.

The individual semi-structured interviews with BTEC Level 3⁹ qualification holders at TUoS were undertaken between March 2017 and February 2018. The interviews were carried out with 26 undergraduate students and 13 academic members of staff. A deliberate approach was taken with the student interviewees to ensure a diverse group of students were involved in the research. Students across three years of study were included to mimic a longitudinal design. The interviewees also came from a number of degree programmes across each of the University's five Faculties (Faculty of Science – FCP, Faculty of Medicine, Dentistry and Health – FCM, Faculty of Social Sciences – FCS, Faculty of Arts and Humanities – FCA and Faculty of Engineering – FCE). A range of courses were represented, including: Accounting; Molecular Biology; Health and Human Sciences; Philosophy; Law; Psychology; English Literature; English and Theatre; Education, Culture and Childhood; Music; Civil Engineering and Aerospace Engineering. Furthermore, a range of BTEC courses were represented in the sample, including: Health and Social Care; Business; Applied Science; Music; Performing Arts; Children's Play and Learning Development; Engineering; Creative and Media; and Sports and Exercise Science.

⁹The BTEC Extended Diploma (Level 3) is equivalent to three Advance level (A level) qualifications.

The research considered students' academic experiences, from pre-entry, entry to the teaching and learning experience whilst studying.

Pre-entry

There were a range of reasons for choosing to study a BTEC, or transferring to a BTEC, including: desire for a less 'school-like' environment and more independence; anxiety about exams as a form of assessment; and life events leading to a reassessment of study choices.

Entry

There were a number of comments highlighting rather negative experiences of trying to enter HE with a BTEC, as shown below:

I know a lot of people who haven't gone to courses because they've done a BTEC, and one other thing was, I applied to another university...they just bounced back and said 'Oh, sorry, we don't take BTECs'. (2nd year, FCE)

Although participants had not experienced this at TUoS, having successfully been awarded a place, it did impact students' decision-making process, with some higher education institutions (HEIs), including 'first choice' HEIs, now being seen by the students when applying as 'off limits'. These experiences resulted in some students feeling conscious about the perceived status of their BTEC by some HE providers:

I think if you do A levels you're seen as that little bit higher up than if you just do a plain, simple BTEC. I think people like seeing A levels more than they do BTECs. I know universities see A levels as better than BTECs. (2nd year, FCM)

The first semester: early experiences of University life

One of the largest themes emerging from interviews was the notion of 'adjustment' to the learning and study habits expected in HE, including independent study (although this may not be unique to BTEC entry students):

I found that it is a lot more reliant on you teaching yourself. Like obviously they will teach you things but then it is very much up to you to sort of have the sort of willingness to go away and reflect on what you've learnt and look back at notes and sort of make sure that you're teaching yourself like and solidifying it. (1st year, FCS)

Comments were also made about acclimatising to a higher workload, including by students reflecting on their earlier experiences:

After I sort of found out what our contact hours were, I was thinking 'Seven hours a week? That's not a lot'. Like and then they give me all these reading lists and expected me to read all of this, and spend so many hours doing this. I felt a bit overwhelmed at the magnitude of how much that I was expected to do on my own. (3rd year, FCS)

Positive comments were also made concerning the advantages of entering HE with a BTEC qualification, in that it provided students with the academic skills and attitude towards learning needed for degree level study:

My BTEC obviously has really helped with regards to how I was learning things, 'cause obviously I was quite pressurised with my time. And so I had to just really knuckle down, and I've become quite good at that. I think it has really augmented my work ethic in a sense. (1st year, FCS)

I know how to manage my time. And kind of like, I already know how to reference and things like that, which I think A levels don't always give you like the practical skills as much. (1st year, FCS)

First year students, on the whole, were positive about their initial experiences of HE and the role that their BTEC qualification had in preparing them.

Teaching and learning experience whilst studying

Students voiced a number of expectations related to teaching and learning practices in HE, and discussed how they responded to what they actually experienced whilst studying. These teaching and learning expectations and experiences concerned: small and large group teaching; support practices; the number of contact hours; curriculum; teaching and learning overall; and Departmental cultures.

Small and large group teaching: Students were surprised to encounter small-group teaching, as pre-conceptions of HE, mainly driven by the media, gave the impression of large lectures as the norm:

I thought it would be more like lectures...they kind of get us to get involved and discuss, which I wasn't really expecting 'cause most degrees, I think, are in like lecture rooms. (1st year, FCS)

Many of the students expressed a preference for small group teaching; they positively commented on opportunities for teacher-student interaction, which in turn, helped them feel more supported.

Support practices: Students welcomed the interaction and support in small group teaching and on small courses, but this was not necessarily expected; students reflected on their post-16 education as involving 'hand holding' from tutors and the 'spoon feeding' of information. It is important to note that such experiences do not specifically relate to BTEC study; students who had studied AS or full A levels in addition to their BTEC regarded this approach to teaching and learning as representative of their post-16 educational experiences too:

I think sixth form; I don't want to say this but, like they hold your hand and they tell you work's due in. (2nd year, FCM)

As the need to undertake independent study was understood students also expressed the need to overcome an aversion to asking for support when needed:

At first before entering (the tutor's office) I was just scared. I was just like, 'This is going to be awful. I'm just going to make a fool out of myself,' but as soon as I got in and I asked, I got so much help and so that was really good. (2nd year, FCM)

Although the comments above relate to small courses, students across all Faculties, even on courses with large cohorts, felt well supported by tutors, and that this support was available and accessible when needed:

My supervisor for my end of year project, he was brilliant. Anything I needed, I could just take my laptop in, show him where I was...he would always reply in a timely fashion and advise me where to go next with it. So, yes, it's been good. (3rd year, FCP)

Contact hours: The lower than anticipated number of contact hours helped students to understand the extent of independent study that was expected and required. Yet, one student raised an important issue regarding this, in that she was not sure how much independent learning was 'enough':

There is no like checklist of how many hours you are supposed to be doing, and it's all on you really to see how much you feel is necessary. So, how do you know if you're doing enough?... there is always more that you can be reading and doing, but then you also have to balance, sort of, uni life and like you can't just be working. So, where is the balance?...I think that's the big thing coming to uni - figuring about your own balance. (1st year, FCS)

One student who had experience of studying both A level and BTEC felt that the independent learning involved in the former was more beneficial in preparing her for HE than the latter:

The workload, time wise, was a lot more similar in BTEC to university, than it was at A level to university I thought...at BTEC, you'd do the notes in class, then you'd go away and do more and more work, and then you'd do the work in the evenings and things to write your coursework...I got used to the library mentality of: 'You've got a break, go and do some work. You've finished college, you could go home or you could go and do some work for a few hours and then come home at 5pm, and I got used to choosing myself to do a 9am 'til 5pm day. (3rd year, FCP)

Curriculum: Students' experiences of the curriculum differed depending not only on the nature of their degree programme, but also on the nature of their BTEC courses and how these related to each other; some students experienced a close match of content but others didn't, and some students felt more prepared due to the practical basis of their BTEC. The comments below reflect this range:

Many of the modules that we are undertaking are already covered by units we did in sixth-form. (1st year, FCM)

I think coming from a BTEC background is we're very practical, like, it's very practical based ...whereas, A level students will learn theory, paperwork, how to do it, we've actually been able to apply that. So when it comes to things like labs I feel like I had a bit more of an advantage. (2nd year, FCP)

Even though the thing is that we did a module of maths in the BTEC which is meant to be similar to A level maths, but it's not, it's not sufficient at all. (2nd year, FCE)

There was a tendency for students studying more traditional courses to express the view about content differences. This may potentially be a result of more traditional courses being less interdisciplinary when compared to 'younger' courses. Students on more traditional, well-established courses still recognised that their BTEC had provided them with a number of highly advantageous, subject-specific practical skills.

One particular issue raised by students was the unhelpful assumption of knowledge based on A level content:

A lot of things, the assumed knowledge that some of the lectures were built on, some of it I didn't have. So, everyone would be like, 'But you did this in AS' and, 'You did this in so and so' and I was blank. (3rd year, FCP)

Teaching and learning overall: Students welcomed having more choice in their teaching and learning experience e.g. via choosing elective modules which played to their strengths. Exam anxiety was also frequently cited, as well as comments about its unsuitability for preparing for real work:

It's, kind of, all or nothing. It's you study all year and then it all comes down to a two-hour period. That is the traditional way of examining most things, but I don't think that's the best way. (2nd year, FCE)

Students themselves also understood where their strengths lay:

With this course you need to be able to know how to write and so BTEC kind of helped me. It, like, gave me a basis for all of my writing...if I had done pure A levels, it would have been difficult for me to get along doing coursework and group work and all of that. It would have been difficult, because I remember in Health and Social Care, we did a lot of coursework and group projects. (2nd year, FCM)

Departmental cultures: One of the key findings of the research was that the cultures of Departments differed in their views of support, equality, and diversity. Similar comments about Departmental cultures were made both by academic staff and students. These cultures understandably affected students' experiences of the University, as well as their feelings of 'fit' in the institution:

I didn't think I would have like quite a personal relationship with my lecturers, but because I am in quite small groups, you know, we know each other by name and they know...are already starting to know my strengths and weaknesses with things. (1st year, FCA)

Now when we talk about this course, we present that as an opportunity, we present that as a way, you will mix with a diverse range of people. Different ethnicity, different social class, different educational experiences, different life experiences and that's a good thing, that diversity. (Senior University Teacher, FCM)

Academic staff views

There was recognition amongst academic staff that the HE curriculum was orientated towards A level content. Reasons provided for this included teaching a majority of A level students, and/or being unaware that BTEC holders had not covered similar content to those with A levels:

Well I guess obviously we're mainly teaching to students who've got A levels.
(Senior Lecturer and Admissions Tutor, FCP)

Academic staff felt that there was often little understanding and/or awareness about what BTEC qualifications involve in terms of curriculum content, providing some indication as to why some students felt that A level knowledge was assumed:

I'm pretty unfamiliar with the curriculum. (Lecturer and Reader, FCA)

I think our staff were not always aware of how the BTEC actually works. So, I think probably if we were to take a lot of BTEC students, we would need to bring our staff more up to speed with the content of the BTEC course and how it differed from A levels. (Senior Lecturer and Admissions Tutor, FCP)

Degree courses with a higher intake of BTEC holders reported investing some time into establishing more familiarity with the BTEC curriculum:

Increasingly we're looking at the sort of BTEC, sort of curriculum, and certainly for our year one tutors we are you know. One of the things I want to do, sort of in, well, in time for next year really is to allow those people who are delivering year one modules, is to be familiar with the content and the BTEC programme through looking at the sort of text books and course materials that they use. I think that would be useful. We've talked about this before and having seen some of the BTEC text books, I can see they do actually fit quite neatly with some of the modules, well some less so, but some, you know and that is really good.
(Lecturer and Programme Director, FCM)

The issue of numbers/proportion of BTEC entry students as a driver for changing approaches to teaching featured in a number of comments from academic staff:

Why don't we change it?...I suppose it's partly to do with the effort for the return that you're going to get, because if we've got 95% of our students are of a certain type and we can fill our course with students of you know that sort of background, why would we invest a huge amount of time and effort trying to restructure the programme in order to allow other students to join the programme but cause lots of disruption in so doing and I suppose it's a sort of an efficiency of scale approach which is not a very satisfactory answer but I think that's the truth of the matter.
(Lecturer, FCE)

Discussions of exam 'issues' were commonplace amongst academic staff participants, with them commenting on a noticeable pattern of BTEC holders not performing, or coping well, with examinations:

The BTEC students come in with the right subject area of learning, and they are often very talented and good at some of the course work elements but they're not as well prepared for a standard examination format. (Head of Department, FCP)

Academic staff also recognised strengths in BTEC entry students:

Some of them, when it comes to doing the coursework, were actually very good because they were used to managing their time and working hard and pulling something together and you know we miss that, in that the majority of our students are straight out of school and don't have work experience.
(Lecturer, FCE)

Academic staff noted where they do work to develop a more inclusive approach to the curriculum, to make learning and assessment more inclusive for all students:

I placed a really heavy emphasis that there was a portfolio of assessment. There are lots of different kinds of tasks to try and speak to different kinds of learners and preferences and backgrounds and whatever else it might be.
(Senior University Teacher, FCS)

One of the things that we've done is we've inserted more ten credit modules which allows the students a change to be assessed with feedback at more regular intervals, which is really important for undergraduates...by putting in more ten credit modules with coursework, they have more, they have more points of call... if they do a piece of coursework, and they hand it in in December, by January they're getting bits of feedback through a grade mark and they're seeing how they've done. We can handle that much better with coursework, and we can turn it around much more quickly with smaller assignments because they're more bite size... they're quick for us to mark because they're shorter. (Head of Department, FCP)

Summary

Factors associated with the likelihood of academic staff perceiving the BTEC qualification, and BTEC students, as more positively or negatively were not clear-cut. There was a close relationship to different aspects of Departmental, course and disciplinary cultures. For instance, established assumptions surrounding knowledge i.e. what is regarded as valid and valuable forms of knowledge, measures of knowledge as well as approaches to, and values concerning learning and teaching.

Positive perceptions of the BTEC qualification, and BTEC holders themselves, tended to be from: academics involved in courses with more practical/applied elements (including placements); those with a higher intake of BTEC holders relative to overall course numbers; those with cultures that valued widening participation and diversity – perceiving this as beneficial to teaching and learning; and those that had curriculum content and assessment practices/patterns that were more closely related to BTEC programmes. Conversely, other views often came from: Departments and courses where staff perceived the admittance of BTEC holders as posing a 'moral' or 'ethical' dilemma; had a low proportion of BTEC holders relative to overall student numbers; and had witnessed a high rate of failure and underachievement amongst BTEC holders. These views were not segregated into different Departments and courses, but were more widely held in line with departmental cultures and values amongst the participant group.

The impact of BTEC Level 3 and A level qualifications not being regarded as equivalent by others, in addition to misunderstandings/lack of awareness of the BTEC, understandably impacted students' feelings of 'fit' and belonging within the institution:

When I started Uni, I didn't think that or, I didn't go worrying, thinking 'Oh I've got BTEC, I'm not going to fit in'. But then when I was at Uni, the more and more I've been here, we are different... you are different with BTEC. (2nd year, FCP)

As is evident throughout the interviews, there are a number of areas, particularly in relation to teaching and learning, where the perceptions of BTEC qualifications are notably different between academic staff and student participants. Below is a summary of student and staff views on the strengths and weaknesses of BTEC holders in terms of academic experiences, skills, and knowledge.

Staff vs student perspectives on the strengths and weaknesses of BTEC holders

The below tables present comparisons of student and staff perspectives of the perceived strengths, and weaknesses, of BTEC holders in relation to the skills, knowledge and attributes required for successful study in HE. Where these appear in both tables, this is to indicate where perspectives were mixed.

Staff perspectives	Student perspectives
Assignment writing	Assignment writing
Group work/presentations	Group work/presentations
Strong work ethic	Strong work ethic
Vocational/applied skills	Vocational/applied skills
Work experience (knowledge of working in professional environments)	Work experience (knowledge of working in professional environments; ability to apply theory to practice)
Familiarity with disciplinary knowledge (dependent on subject area/course studied in HE, and particular BTEC studies)	Familiarity with disciplinary knowledge (dependent on subject area/course studied in HE, and particular BTEC studies)
	Referencing practices
	Independent learning/self-directed study
	Research skills
	Note taking

Table 1 Perceived strengths of BTEC holders

Staff perspectives	Student perspectives
Exams	Exams
Lower confidence in own abilities	Lower confidence in own abilities
Unfamiliar with culture of individual accountability (re assessment deadlines)	Unfamiliar with culture of individual accountability (re assessment deadlines)
Unfamiliar with disciplinary knowledge (dependent on subject area/course studied in HE, and particular BTEC studies)	Unfamiliar with disciplinary knowledge (dependent on subject area/course studied in HE, and particular BTEC studies)
Assignment writing	Referencing practices
Not 'academically/intellectually strong' (when compared to A level students)	
Independent learning/self-directed study	

Table 2 Perceived weaknesses of BTEC holders

From the tables we can see, perhaps expectedly, that BTEC holders considered themselves as having a greater number of strengths than weaknesses in terms of the skills, knowledge and attributes required to study in HE, and staff as viewing them as having more areas of weakness. Yet, there are also a number of areas, both in terms of strengths and weaknesses, that student and academic members of staff appear to be in agreement with.

Considering the above tables, as well as the data presented throughout, it is important to remember that perceptions were mixed amongst students and staff. Students' level of preparedness in terms of knowledge, curriculum and assessment (as judged by themselves and staff) were heavily influenced not only by the demands of their degree programme, but the specific BTEC they had studied, and the applicability of this to their HE course.

Moreover, students' experiences of, and knowledge about HE, are mediated by a number of structural factors, such as socio-economic background, ethnicity and disability; according to the literature, students undertaking BTECs are more likely to be from socio-economically disadvantaged backgrounds and minority ethnic groups (Kelly, 2017; Rouncefield-Swales, 2014). As such, some of the experiences voiced by students may be associated with these background characteristics, rather than the qualification they hold. Though, it is not possible to provide significant conclusions in relation to this here, due to the small number of participants involved, as well as some data being missing from, or not disclosed in the TUoS Student Record. However, the analysis above represents a variety of student and staff perspectives on how BTEC holders experience HE, the role of the BTEC in shaping this, and how aspects of institutional structure and culture impact these experiences.



Chapter 6

Conclusions and recommendations

Although this was a small-scale and relatively brief Project (in terms of most typical cohort projects) the partners involved believe that there are key conclusions and recommendations that can be drawn from the activities undertaken.

Conclusions

1. Entry into HE with a diversity of qualifications

The numbers of students holding a BTEC has increased over time as a percentage share of university applications. T levels and apprenticeships are likely to increase the trend towards a greater mix of pre-entry level qualifications, other than A levels.

2. Curriculum, teaching and assessment methods

Given most students in most subjects in selective universities hold A levels, a danger exists that the different pedagogical experience of those students with equivalent qualifications is ignored or prior knowledge is assumed. Overall, the percentage of students who obtained a good degree during 2011-2016 is consistently higher for students who entered the University with A levels only, but it is not clear whether this can best be explained by differing ability or by the fact students with equivalent qualifications are less understood or less recognised as a minority, or other reasons.

3. Disciplinary differences

Analysis of the University's Departmental data has shown dramatic differences in the number of students entering the University with equivalent qualifications by Department. Students with equivalent qualifications are not equally represented across the Faculties or Departments. Students and academics report different experiences related to how vocational their subject is and the presence of other students with equivalent qualifications. This means any discussion or decision-making about whether or not to accept students with equivalent qualifications may need to come to different conclusions in different disciplinary contexts, and not be seen as choices over different qualities of intake but as choices about the appropriateness and diversity of intakes. Again, it is not clear whether the differences observed are a result of better accommodation of difference in some disciplines or a true reflection of where prior particular skills better match the academic discipline.

4. Relationships

Nearly all the schools and colleges commented on the positive impact of either developing or further cementing relationships with Department academics. This was seen as key for addressing 'myths' about BTEC study and for supporting participation into HE. Department staff also found this added value to their understanding (as below).

5. Myth-busting

The value of sharing fuller information and facts about BTEC study was also welcomed by Departments, and this was seen as an essential part of the relationships built or furthered through the Project. The views of students and staff in the research work also demonstrate how important it is that there is a better understanding of BTEC study and content in HE. This can help to challenge possible misconceptions, biased perceptions and 'snobbery' by supporting better informed views.

The nature of change in vocational education can lead to challenges of keeping up-to-date. BTECs have already undergone a major change which affected the nature of the qualification (in some respects bringing it closer to A levels), but understanding qualifications and the match with degree courses is a core part of any university's recruitment work.

6. Diversity and inclusivity

It is clear that BTECs are in and of themselves not automatically a widening participation (WP) indicator; many different types of students undertake BTECs, many of whom will not fall under WP activities. However, the data indicates that many BTEC students come from backgrounds which would be supported to access HE, in recognition of the barriers to entry which exist. As such these students would have received targeted outreach support from universities. The Project partners are mindful of the relationship between WP and BTECs and believe that fundamentally HE should ensure it does not lose out on talented and able students based on assumptions about the qualification studied. We also recognise that HE should be open to all those with the talent and ability to undertake courses at the higher level. Treatment of students when they are in HE is key to supporting inclusivity, reflecting the comments made by students about feeling unwelcome or 'different' in HE.

Recognising the future challenges of a changing labour market and both economic and societal needs of the UK, in the near and long-term future, should also be a driver for considering the relevance of a set of wider entry qualifications into HE.

7. Transparency

The Project experienced some difficulties concerning collecting a full data picture about BTEC students in the University, for example in terms of capturing entry qualifications consistently and systematically across the University. This might be replicated elsewhere and addressing such issues would help to be clearer about the diverse nature of entry qualifications in HE. School/college partners and students expressed a need for clear information on admissions criteria.

8. Supportive transition activity

The Project strands which supported transition into HE were seen as positive developments, in particular the HE Module, the Summer School and we believe the online module will also be beneficial. All partners found the class observations in each other's own environments very useful in supporting both a better understanding of BTEC study but also course requirements in HE and the nature of the study. Supporting academic skills development was also seen as useful activity, via the work of the modules and Summer School. Such development work was seen as beneficial for a wider group of students, not just those entering with BTECs. This work may be separate to an institution's outreach work, although there may be complementary activity. As said above, equivalent qualifications students are not automatically supported to access HE due to under-representation.

Recommendations

The Project partners recommend:

1. HE providers and schools/colleges should support appropriate and proportionate relationships with each other, involving linking academic/teaching staff where that is possible.
2. HE providers and schools/colleges should work together to ensure accurate information about BTECs and other non-A level qualifications are disseminated widely within a HE provider. This will support 'myth-busting' but also enable admissions and academic staff to make informed decisions about the appropriate match between students' prior qualifications and their chosen HE courses.
3. HE providers should support an inclusive teaching and learning environment and be aware about how negative pre-conceived views on equivalent qualifications may impact on students.
4. HE providers should improve data capture of entry into their institutions of students with equivalent qualifications by ensuring that data collection is consistent and systematic. HE providers should ensure admissions criteria are clear and informative to students.
5. HE providers should consider what transition activities they can undertake to support the success of their equivalent qualifications students, who will have already met competitive criteria for entry.

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Annex 1 Data categories used for Chapter 3

Data provided for 2011-2017 by Planning and Insight, University of Sheffield

- Year
- Prior qualification type
- Faculty
- Academic Department
- Degree outcome
- Black, minority ethnic (BME)
- Accessing Disabled Students' Allowances (DSA)
- Low-participation neighbourhood (LPN)
- Sex

Data caveats

- The data is expressed in terms of FPE (Full Person Equivalent).
- The data covers UK, home undergraduates only.
- The data provides a snapshot for each year and is expressed in terms of year. For example, a typical student who studied for three years from 2012 would appear in the data for 2012 as registered, for 2013 as registered and for 2014 as complete with degree outcome, or registered if not yet complete.
- It is not possible with the data utilised to track a unique student journey.
- The Faculty PRF stands for Professional Services which includes The Department for Lifelong Learning, Modern Languages Teaching Centre and English Language Teaching Centre. These Departments are outside of the traditional Five Faculty structure.
- Degree outcomes which are classified as Pass, Merit, and Distinction, which predominantly relates to the Faculty of Medicine, are not included in the degree outcome analysis.
- Prior Qualification type includes "Other". Other is any qualification or combination of qualifications that are not recognised as BTEC only, A level and BTEC, A level only or Access Course. Other may include, but is not limited to, International Baccalaureate, Welsh Baccalaureate, Scottish Higher and equivalent professional experience.



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