

Raising aspirations for non-traditional students through Higher Education outreach activities: A review of literature relevant to the Uni Connect programme

Dr Anthea Rose and Lucy Mallinson

Lincoln Higher Education Research Institute (LHERI), University of Lincoln, UK

Abstract

The Uni Connect programme delivers targeted Higher Education outreach activities to young people in Years 9 to 13. Funded by the Office for Students (OfS), Uni Connect is delivered through 29 local learning partnerships primarily comprising universities and colleges. The focus of Uni Connect is on geographical areas where the Higher Education participation of young people is much lower than expected based on GCSE-level attainment (those who could, but are currently not, progressing to Higher Education). Some 997 wards across England have been identified as falling into this category, including 24 wards in Lincolnshire. This review summarises key literature between 1998 and 2020 relevant to the Uni Connect programme. It focuses on more recent publications by those researching in the compulsory education sector. The review includes the rationale behind the Uni Connect initiative and the theoretical frameworks being employed. It specifically explores young people's transition into Higher Education, the application process and how they make informed post-18 choices about their future pathways. Literature concerning the impact of outreach activities delivered in secondary schools on a student's journey into Higher Education is also considered. Each of these areas are interlinked and not mutually exclusive, reflecting the often-complex journey, or not, into Higher Education.

Key words: Outreach activities, Higher Education, Theory of change, Bourdieu, Non-traditional students.

Setting the scene

Whilst there has been a 'gradual opening up' of Higher Education (HE) over the last 80 years (Holton, 2018: 557), widening access to university for all students in recent times began in earnest from the turn of the new millennium (Gewirtz, 2001). Over the 20 years since, an access agenda has evolved and there are now more non-traditional young people entering HE than ever before, and particularly to the most prestigious universities (Wyness, 2017 and O'Sullivan et al., 2019). Holton (2018: 557) defines non-traditional students as '*first-generation university attendees from working-class or minority backgrounds*' whose knowledge of HE is limited. These learners are sometimes referred to as disadvantaged (Wyness, 2017) or first-

generation students or learners (Thompson, 2019; Roksa and Silver, 2019). For the purpose of this article, the term non-traditional students will be used throughout. Despite the progress made, there remains a significant gap between the percentage of traditional and non-traditional students accessing university education (OfS, 2019a; Social Mobility Commission 2019). The latest figures from UCAS (2018) show a slowing down of the gap closing. When all factors such as gender, ethnicity and Free School Meal (FSM) status are considered, little progress was made between 2018 and 2019 in narrowing the disadvantage gap for 18-year olds. The Education Policy Institute (in their Geographical Analysis pack 2019) report that the 'disadvantage gap' not only persists but, in some areas, especially in the case of the top universities, it is actually widening.

In 2015, under the government's social mobility programme, the widening participation agenda was extended setting two specific aims. The first was to double the proportion of students from disadvantaged backgrounds going into HE by 2020. The second was to increase by 20% the number of black and minority ethnic (BME) students entering HE over the same period (BIS, 2015). Designed to support these specific aims, the Office for Students (then HEFCE) funded the National Collaborative Outreach Programme (NCOP). The project began in January 2017 and Phase 1 ran until July 2019; Phase 2 commenced in August 2019 and is due to finish in July 2021 (OfS, 2019b). In February 2020 the NCOP initiative was rebranded as Uni Connect. At the time of writing, the programme delivered targeted HE outreach activities to young people in Years 9 to 13 at school through 29 education partnerships. Uni Connect focuses on the 997 wards in England where the HE participation of young people is both low and much lower than expected based on GCSE-level attainment.

This review of literature relevant to Uni Connect was written in part to inform the evaluation of the programme delivered by LiNCHigher in Lincolnshire 2017-2021. LiNCHigher is a partnership of nine education providers and organisations from across the county delivering Uni Connect funded outreach activities to target learners within Lincolnshire. The evaluation component of the local programme is being carried out by a small team of researchers from the Lincoln Higher Education Research Institute (LHERI) at the University of Lincoln. Working collaboratively and in partnership with researchers across a diverse range of subject disciplines both within the university and beyond, LHERI contributes directly to the production of an evidence base of empirical research which improves practice, advances thinking in conceptual, theoretical and methodological development and informs policy and decision-making. LHERI is dedicated to collaborative partnership working across a diverse range of subject disciplines both within the university and externally.

Methodology

The Uni Connect programme covers a broad range of interlinking issues including young people's transition into HE, how they make informed post-18 choices and the impact of outreach activities. The aim of this review of literature is twofold. Firstly, to

underpin the design of the Phase 2 evaluation of LiNCHigher's outreach programme and secondly to inform academic practitioners working in the area of widening participation. As such this is a scoping, rather than a systemic, review of literature.

Systematic reviews are typically focused on answering one specific research question (Arksey and O'Malley, 2005) in a rigorous and systematic way (see Torgerson, 2003 and Torgerson et al., 2012). Articles that do not meet pre-defined criteria, including a certain level of quality, are sifted out. However, not all literature reviews wish to address a single or exacting question (Munn et al., 2018). In these circumstances, as is the case here, a scoping review maybe deemed more appropriate.

Arksey and O'Malley (2005:20) outline the difference between the two approaches:

First, a systematic review might typically focus on a well-defined question where appropriate study designs can be identified in advance, whilst a scoping study tends to address broader topics where many different study designs might be applicable. Second, the systematic review aims to provide answers to questions from a relatively narrow range of quality assessed studies, whilst a scoping study is less likely to seek to address very specific research questions nor, consequently, to assess the quality of included studies.

Whilst less rigorous than systematic reviews, scoping reviews are more open and aim to identify and map the general area or areas under investigation providing '...a narrative or descriptive account of available research' (Munn et al. 2018:30).

In order to address the areas under investigation, articles were initially identified through a key word search using a number of databases including Google Scholar and Academic Search Complete. Key words or phrases used included: transition into HE, decision making, careers information advice and guidance into Higher Education institutions (HEIs) and outreach activities. Searches were also conducted on the key concepts of Bourdieu's habitus and social capitals in relation to raising the aspirations of non-traditional students and theories of change and self-determination theory (SDT) relevant to the Uni Connect programme. Abstracts of promising looking articles were then fully reviewed and further relevant references followed-up. Only literature (articles, policy reports and government documents) that were pertinent to the various aspects of the Uni Connect programme (particularly those that took a view from the school or college perspective), those written in English and those readily available to the public were included amongst the final 47 included.

Theoretical approaches

Much of the literature in the area of widening participation has traditionally been underpinned by Bourdieu's (1977 and 1986) theories of habitus, field and cultural and social capital (i.e. Leathwood and O'Connell, 2003; Reay, 2004; Reay et al., 2009 and 2010) and this continues to be the case (Holton, 2018; Roksa and Silver, 2019;

Rose et al., 2019; Thompson, 2019). The concepts, which help explain the inequalities that prevail within certain sectors of society, including education, have been widely discussed and problematized, not least by some of the authors cited. According to Diamond et al. (2014:36), Bourdieu's social theory '*provides an ontological foundation for sociological studies.*' Put simply, field relates to an identified social space such as the various institutions that make up society: for example, the education sector, politics, religion and the family. '*Each field possesses its own logic, its own way of thinking and its own predetermined hierarchy of power and status*' (Rose and Atkin, 2007: 602). Here we are particularly interested in the fields of HE and the family.

According to Bourdieu, habitus '*relates to the way in which individuals within a field cope or rationalize the social world in which they find themselves*' (Rose and Atkin, 2007: 602). Therefore, the family environment in which an individual is raised can be viewed as a determining factor in the life choices available to that individual; especially in their formative years. Diamond et al. (2014:35) finds '*habitus can be described as the complex psychological dispositions of people or groups that reflect the social context in which they develop*'. However, habitus is not static. It can and does change over time as a result of different experiences and connections, but these are usually from outside the field. For Bourdieu, habitus involves '*the transference of dispositions learned in one environment to another environment*' (Holton, 2018: 558). Individuals make choices on a daily basis, throughout their lives, that determine their future and these decisions are heavily influenced or, as some have argued, constrained (Leathwood and O'Connell, 2003; Reay et al., 2009 and 2010; Thompson, 2019), by the environment in which they grew up. In terms of non-traditional students accessing HE, it results in these individuals being unfamiliar with university settings as they are, by definition, the first in their family to experience this aspect of education. Therefore, they are unfamiliar with the codes and conventions required to function effectively in such an environment, unlike their 'traditional' student counterparts who know how to 'play the game' (Bourdieu, 1977).

The notion of capital is intrinsically linked to habitus and comes in four main forms: economic, cultural, social and symbolic. Each can be divided further. For example, cultural capital has three components: institutionalised, embodied and objectified (see Holton, 2018 for further explanations). Cultural and social capital are the most relevant to the area of enquiry here, specifically the transference of cultural capital between parent and child in relation to their experiences, knowledge and understanding, or not, of HE.

Whilst these concepts are problematic and even contested by some, they are useful to use as a starting point to look at the issues around widening participation and specifically the engagement of non-traditional students in HE. The current project is no exception since the OfS strongly encourages embedding evaluation within an appropriate framework such as Hayton and Bengry-Howell's (2016) *Network for Evaluating and Researching University Participation Interventions* (NERUPI) framework, which is based on Bourdieu's concept of Habitus:

The NERUPI Framework is predicated on a cultural model of widening participation, which locates interventions within a contextual field of engagement where student habitus and the institutional habituses of school and university intersect. In this respect, the framework's emphasis on students' habitus and capital is underpinned by an acknowledgement of HEIs' responsibilities to deliver 'enabling' interventions, which facilitate institutional reflexivity as well as personal change for participants. (Hayton and Bengry-Howell, 2016:46)

Uni Connect also builds on the work of Diamond et al. at CFE Research who, in 2014, carried out a structured literature review to ascertain how students use information to decide whether or not to study at university, what to study and where to study. This advisory piece of work, which found many of the studies in this area of enquiry, particularly those around issues of socioeconomic background and transition to HE, were also underpinned by Bourdieu's notions of habitus and cultural capital. The work of Diamond et al. can therefore be viewed as a pre-cursor to the current Uni Connect project.

However, the theory of self-determination may also prove to be one of many potential examples of a useful lens through which to view this area of study. Relatively new, self-determination theory (SDT) comes originally from the US and the discipline of psychology. According to Ryan and Deci (2000) SDT is centred on the basic psychological needs concepts of competence, relatedness and autonomy, three factors that can influence self-motivation through personality development and the self-regulation of behaviour. Together they can optimise an individual's '*natural propensities for growth and integration, as well as for constructive social development and personal well-being*' (Ryan and Deci, 2000: 68). In practice, SDT is made up of five key elements: basic needs, organismic integration, goal content, cognitive evaluation and causality orientations (Reeve, 2012). Each of which helps to predict, to a greater or lesser degree, an individual's intrinsic or extrinsic motivations and therefore, it argues, their success or failure in any given context. As such, SDT can potentially offer a practical, testable framework for the effectiveness of HE outreach activities set within the overarching concepts of Bourdieu's broader notions of habitus and social capitals.

Making informed post-18 choices

There is a large body of new and established literature around student choice at the post-compulsory schooling stage. The literature encompasses where, when and how students get their information and much of it concerns non-traditional students (see for example: Foskett et al., 2008; Diamond et al., 2014; Rose et al., 2019; O'Sullivan, 2019 and Thompson, 2019).

One large-scale qualitative study by Foskett (2008) involving approximately 1,000 Year 10 to 12 secondary students, 69 members of staff and 165 parents in 24 schools

across England, explored the role of school-based factors in the post-16 decision-making process. The study found that students in schools with sixth forms were more likely to opt for academic subjects at post-16 and those without sixth forms viewed the information, advice and guidance (IAG) they received as *'being more impartial'* (45). Ultimately, the study found the schools' socio-economic environment and overall context influenced a school's post-16 position and therefore, potentially a students' career and life destination. In low-attaining schools this frequently meant reproducing the inherent inequalities of the system and failure to break with the students established habitus or to build their social and cultural capital in the field of HE.

Diamond et al's. (2014) structured literature review of more than 220 articles on how students use information to decide whether or not to study at university, found that the decision-making process is not always rational. They concluded that it sometimes relies on *'convenient but flawed heuristics (mental shortcuts) rather than on solely rational criteria'* (Diamond et al., 2014: 6) and that it can be a very personal activity. They identify two kinds of decision-makers: maximisers and satisficers. Maximisers tend to seek more information and evaluate their options, whilst satisficers are more likely to make a decision once their criteria are met. Their review suggests that a number of factors need to be taken into consideration when students are making HE choices, including the *'complex and dynamic nature of information-seeking'* (6) and that those providing information about the HE sector should, where possible, consider tailoring it to suit individual cases. They conclude: *'there is no single solution for the provision of the "right" information'* (Diamond et. al., 2014: 6) and caution that students may not necessarily know why they made the HE choices that they did, especially if they are not given sufficient opportunity to reflect on their decisions.

More recently, Thompson (2019) considered the need for focused IAG for students contemplating HE study. Drawing on the Diamond et al. (2014) report and the earlier work of Reay and Ball (1998), Thompson explores the complexities of, and context in which, non-traditional students make post-18 choices. Employing a 'pragmatic mixed-methods' approach, Thompson distributed a questionnaire containing both closed and open questions to 1160 year 9 to 13 students in three secondary schools. The questionnaire was followed-up with a focus group with sixth-form students from one of the schools. Thompson considers a number of areas, including social factors, parental influence, peer relationships, and the role of both schools and universities. Additional factors such as: *'family and peer support, education networks, positive attitudes towards education, and relevant and timely IAG'* (Thompson, 2019: 2) were also considered. Like others, Thompson employs the notion of habitus to discuss the boundaries of choice for individual students. The study, set in the West Midlands, one of the most deprived areas of England, finds that more and clearer IAG is needed to enable non-traditional students from disadvantaged background to make informed decisions about their future pathways. He also found students perceived their parents to be more positive about encouraging them to apply to university than their teachers. This raises the urgent need to address teacher habitus and

dispositions where they are advising students on post-16 pathways. In summing up his findings from the student focus groups, Thompson (2019: 12) notes:

The focus groups consolidated several key points in the research and the literature, that family environment and parental attitudes are key and that many are aspirational in terms of HE progression. The school environment is also important to help inform the decision-making process and progression requirements, especially in the absence of family knowledge of HE.

Whilst the literature suggests the type of school, its ethos, values, leadership and quality of IAG all play a part in the decision-making process the role of the family has also been highlighted as an important factor.

Parental influence and involvement

The role of parents in the HE decision making process – be it positive or negative – cannot be underestimated. The literature frequently cites parental influence to be greater than that of teachers and makes a direct link between household income (economic capital) and the likelihood of a student applying to university (Diamond et al., 2014; O’Sullivan, 2019; Roska and Silver, 2019; Thompson 2019;). However, the literature also suggests that for non-traditional students, schools need to be able to fill the gaps that family and friends cannot, due to their limited experience of the sector (Rose et al., 2019).

Evidence of parental influence comes from both qualitative and quantitative data. For example, using the Longitudinal Study of Young People in England (LSYPE) Wave 1 and 3 data, Khattab (2015) found the most important factor in a student’s decision to apply to university were their parents. Khattab, who considers the link between aspirations - what a student would like to achieve, expectations – what a student can realistically expect to achieve, and school achievement - what a student actually achieves, for non-traditional students, including those from minority backgrounds, found many parents had high aspirations for their children. However:

Disadvantaged parents (e.g. working class) do not always possess the knowledge or resources to help their children convert the high aspirations into actions and future achievement. (Khattab, 2015: 734)

The role of friends and family and specifically the different roles that mothers and fathers play in influencing their children’s decision to go onto HE is also evident in the literature, (Brooks, 2004). In a two-year longitudinal qualitative study that tracked 15 young people through college, Brooks found that fathers appeared to be more involved when information about universities came from their place of work and/or social networks rather than from the school; what Ball and Vincent (1998) termed ‘hot knowledge’. However, when the information came predominantly from the school it was the mother that was more likely to have the greatest level of involvement and influence in the decision-making process.

It is clear from a wealth of both new and long-standing literature (see for example O'Sullivan 2019; Thompson, 2019; Rose et al, 2019; Reay and Ball, 1998; Diamond et al., 2004; Brooks, 2004; Foskett et al., 2008) that family influence, school culture, the timeliness, clarity, appropriateness and quality of IAG, along with motivation - be it intrinsic or extrinsic - and self-determination, are all likely to be factors in a student deciding not only whether to apply for university or not but to which one. It is also evident through the literature cited that a student's familial habitus and cultural capital are integral to the decision-making process in numerous, complex and interlinking ways.

The university application/admission process

Several articles have reviewed the literature concerning the HE application and admission process. They found the process to be bias towards students with a HE familial and school/college habitus and, therefore, disadvantageous towards non-traditional students. Recently Wyness (2017) reviewed literature from the UK and United States around the inequalities of the university admissions process for the Sutton Trust. Entitled '*Rules of the Game*', the review focuses on UCAS forms, course choices, predicted grades and personal statements and included both qualitative and quantitative studies. The review explores how the admission process could potentially be a contributing factor in the continuation of the disadvantage gap between non-traditional students and their more advantaged peers. The report highlights the need for non-traditional students to better understand the application process, arguing that simply attaining the required grades is insufficient to secure a university offer, especially at an elite university. According to Wyness, figures show that the most advantaged applicants are six times more likely to enter a high tariff institution compared to the most disadvantaged applicant. This is largely because high ability non-traditional students lack the IAG needed to navigate the university application process. They are not sufficiently aware of basic information, such as UCAS application deadlines. In addition, non-traditional students frequently choose which university to apply to based on their predicted, rather than actual, A-level grades, yet many, around 1,000 disadvantaged, high-achieving students a year have their grades under-predicted. Wyness finds that personal statements are another barrier to entering university for non-traditional students. They often get less support in writing their statements, both from family members and the schools and colleges, their statements are often peppered with spelling and grammatical errors and have less substance than those received from more 'traditional' applicants:

...those from deprived backgrounds are also able to provide fewer examples of the types of work and life experiences that many colleges and universities value, and use to decide between applicants. (Wyness, 2017: 3)

Ultimately, Wyness finds that the admissions process lacks transparency and in so doing further disadvantages non-traditional students as, unlike their more knowledgeable, 'savvy' counterparts, neither they, nor their families, know the 'rules

of the game' or how to play it effectively; they do not possess either the habitus nor the cultural capital required. Wyness concludes that at the very least the 'rules of the game' should be clear and transparent to all, so that students can make both timely and informed choices regarding their post-18 progression.

Two other recent studies (Rose et al., 2019 and O'Sullivan, 2019) have both focused on the role schools play in supporting non-traditional students in applying to prestigious universities. Rose et al. (2019) looks specifically at how students from low-attainment schools choose which university to apply to and the need for schools to fill the gaps in student HE knowledge that family and friends cannot due to their limited experience of the sector. They specifically explore why there is a lack of applications from such schools to Russell Group universities. Rose et al., which uses Bourdieu's concepts of habitus, field and capital as their theoretical underpinning, reports on a longitudinal study that followed students at five schools/colleges through their sixth form years. Using a combination of student focus groups and individual interviews they collected data over a two-year period, initially on 60 students in the first year and 43 in the second. In general, students who did not apply to Russell Group universities viewed universities as 'instrumental' places of learning, rather than a place of learning for learning sake; which was seen as a luxury. For these students, one of the main reasons for going to university was to learn a profession or craft that they could then follow as a career. They concluded that students' aspirations were fluid and evolved throughout their sixth form years, noting that the students:

Changed dramatically over the course of sixth form. For the most part, they became more confident in understanding what university might be like. Some started out focused on a particular course or university (often on the basis of limited information from conversations about the experiences of an older family member or friend), and over the course of their sixth form before UCAS applications broadened their horizons to understand the range of opportunities that they could pursue. Others started their sixth form overwhelmed. Schools need to fill the gaps that family and friends cannot – due to their limited experience of HEIs. (Rose et al., 2019: 868)

They further found a university's demographic make-up, proximity to home and the student's familiarity with a particular university, were important considerations in where they applied. Most crucially, however, in line with others (Diamond et al., 2014) they found that information regarding HE needed to be consistent and timely and centred around certain 'key crunch points', such as the time of choosing their A-levels; selecting degree subjects; receiving predicted grades; UCAS applications; and when they received offers from universities. Finally, they concluded that information alone is insufficient and that students' 'may benefit from a sustained relationship with school staff so they can access holistic support at each stage of the process' (Rose et al., 2019: 869).

O'Sullivan's (2019) qualitative study of 20 non-traditional students from socioeconomic disadvantaged backgrounds in their foundation year at Oxford

University found a school's leadership, ethos and previous experience of encouraging students to apply to university all impacted on a schools' ability to assist non-traditional students. Set within Bourdieu's (1984) cultural reproduction paradigm, specifically the elements of social and cultural capital, the study explores the relationship between students, schools and their decision to apply to prestigious universities. O'Sullivan finds a lack of encouragement, guidance and support from the schools and difficulty in students understanding how to write personal statements. Students reported they were left frustrated and feeling let down by their schools. He concludes the difficulty lies with the '*institutional habitus*' of the schools from which the students came, commenting that this '*...may reflect an absence of key cultural capital within schools to support applications to prestigious universities.*' (O'Sullivan, 2019:1681).

Transition into university

There is a large and established body of literature that discusses the challenges young people face when transitioning from the compulsory school/college education system into university that has been extensively and recently reviewed (Beaumont et al., 2016; O'Sullivan, 2019; Roksa and Silver, 2019). However, the majority of literature focuses on the experience of young people once they have *arrived* at university - most commonly during their first year as an undergraduate - rather than considering the issues they face *prior* to transitioning to university (Money et al., 2019). Most of the reviewed literature focuses on a variety of transitional aspects, from a young person's academic and emotional readiness to their social integration, to developing a learner identity. It examines the types of interventions that universities could, should and actually do to help ease the transition and how these may or may not ultimately affect the young person's academic persistence, satisfaction and ultimately their attainment (Cook et al., 2006; Harvey et al., 2006; Nelson et al., 2011; Veldman et al., 2019). Hughes and Smail (2015: 468) conclude that interventions are less than effective if universities are not able to engage their students and if the students do not see their relevance '*at the time they are being offered.*' Therefore, interventions need to be delivered in a timely manner.

In recent years much of the literature included in this review (Leathwood and O'Connell, 2003; Read et al., 2003; Raey, 2004; Reay et al., 2009 and 2010; and Christie, 2007) has focused specifically on young people from disadvantaged backgrounds and the specific challenges they face transitioning to HE. This has largely been reflective of the growth in the universities widening access to include 'first-generation' students (Holton, 2018) as a result of the widening participation agenda into HE. According to Holton '*...first-generation university attendees from working-class or minority backgrounds, whose limited knowledge of the inner workings of HE means they can often experience much greater difficulties in 'fitting in' at university*' (557). However, although this literature covers a wide range of topics relating to the transition period, including consideration of accommodation type (Holton, 2018) and family influence and support (Khattab, 2015; Roksa and Silver, 2019) the focus remains very much on the undergraduate experience.

However, one UK study (Money et al., 2019) does consider how prepared students are *before* entering university. Money et al.'s recently published work focuses on whether or not a young person's educational experiences in school and college adequately prepares them for university. Their qualitative research study conducted between March and May 2016 explored the views of 19 sixth-form teachers from schools and colleges in four educational institutions across the North West of England through individual interviews and explores student preparedness in two key areas: independent learning and academic confidence and the importance of assessment, discussion and articulation skills and the role of positive reinforcement and praise. Whilst the study is limited as it approaches the issue through the voice of sixth form teachers, rather than from the students' perspective, it raises some valuable points regarding the difference between the school and university system. It specifically highlights variations in the terminology used in relation to what is meant by 'independent learning' within each of the two systems:

Within the school setting, independent study normally takes place over short time periods, with specific tasks related to the content. At university, however, modules, courses and programmes are planned around the content that students will cover in face-to-face lectures and seminars, with 'independent study' then making up the rest of the learning. In terms of time allocation, in the UK this is usually 60–80% of the course or module of study. (Money et al., 2019:3)

Teachers in the study cited such tasks as homework, reading over work, practising exam papers and some aspects of revision as independent learning. They also recognised that the 'guided' independent learning expected at school was unlikely to be the same at university. Money et al. concluded that teachers in schools and colleges often have a conflict of interest when it comes to providing their students with the independent learning skills they require for university. Many were concerned that leaving the students to their own devices risks failing their A-level examinations and missing out on a university place altogether:

The findings from this study suggest that preparedness linked to independent learning relates to support, location, time and ability to self-guide rather than be guided and is an area in which students are under-prepared. Therefore, if university staff recognise that students are unlikely to have become independent learners by the time they leave school, they can address this issue when they set the first-year curriculum and explain to new students 'how' to develop independence in their learning. (11)

The message to universities from this study is not to expect your first-year undergraduates – especially those from disadvantaged backgrounds – to be independent, confident learners when they arrive. Whilst Money et al. do not consider non-traditional students separately, it is implicit in their findings that if all students are struggling with this area of transition, then those without the required cultural capital

or familial HE habitus (i.e. non-traditional students) will take longer to acquire the necessary skills and tools required by the sector at this crucial time of transition.

The impact of outreach activities

Outreach activities, which commonly include campus visits to HEIs, taster days, master classes, mentoring and summer schools, amongst other activities, have been defined by the Office for Fair Access (OFFA) (now OfS) '*...as activities that help raise awareness, aspirations and attainment among people from disadvantage or under-represented groups...*' (Barkat, 2019: 1163). Whilst outreach activities are established and widely used across the educational sector, little is known about how they impact on non-traditional students' decisions towards HE. This is mainly due to the fact that evaluating their impact is complex and therefore difficult to do so rigorously or systematically (Barkat, 2019; Younger et al., 2019; Harrison and Waller, 2017).

Much of the literature around outreach activities centres on STEM subjects (Science, Technology, Engineering and Mathematic) and/or comes from an international perspective and has limited value in the Uni Connect context. For example, the work of Vinnex et al. (2017, 2018) looks at STEM outreach activities for secondary school children in the US and The Netherlands. Their survey-based studies have explored student perceptions of their learning environments (2017) and their motivations and attitudes (2018) towards STEM outreach activities and found that teaching methods were most likely to have a positive effect on students' perceptions. Regarding motivation and attitudes, which they explored using self-determination theory (SDT), they found '*the attitude towards a possible STEM-career was positively associated with autonomous-motivation and negatively associated with controlled-motivation*' (Vinnex et al., 2018: 1264). School involvement with outreach activities could, potentially lead to greater student engagement with STEM subjects and careers. Further evidence of the international nature of many of the studies was recently provided by Heaslip et al. (2020). Their systematic literature review of studies concerning the impact of outreach strategies aimed at improving access to HE between 2005 and 2015 initially identified 847 potential articles. However, this number was reduced significantly to 26 when additional criteria were applied, including the exclusion of studies that were non-UK based.

From a UK perspective there are four studies specifically relevant to the Uni Connect programme. The first is a report by the Sutton Trust on the impact of their summer school programme (Hoare and Mann, 2012). A national initiative that has been running since 1997 in four universities - St Andrews, Bristol, Cambridge and Nottingham - the programme is open to non-traditional students who meet both their academic attainment criteria (which, at the time of the report were five or more GCSEs at A and A* grades) and certain social conditions. For example, attendance at a low performing school; receipt of the Educational Maintenance Allowance and have parents with no HE experience. Their evaluation of 2008 and 2009, which followed both attendees and a control group through a range of methods including

UCAS tracking and pre and post questionnaires, found strong empirical evidence that summer school attendance has the potential to narrow the gap in the university application process. Attendees were more likely to engage with the university application process and more likely to apply to leading universities. They concluded that *'summer schools make the biggest difference to the poorest students'* (Hoare and Mann, 2012: 2). Their findings are in line with others, including Addi-Racah and Israelashvili (2014) whose work in Israel looking at the long-term effects of a university outreach programme in Tel Aviv also found evidence of increased enrolment onto university courses by participating low socio-economic status students.

The second study is Younger et al.'s (2019) systematic review of evidence on the effectiveness of interventions and strategies for widening participation in HE. In total over 3,500 potential articles were reviewed. However, just 16 were deemed relevant to the UK context and of high enough quality to be included in the final article. While the majority of studies were carried out in the US, Younger et al. (2019:770) were unable to find any *'robust evaluations of UK-based interventions.'* The articles reviewed covered a range of topics including the participation and retention of minority ethnic students. Ten studies were reviewed under this category, six of which focused on interventions that took place in a school setting and four in Further or HE contexts. Younger et al. found the most effective school-based interventions for minority ethnic students had either financial incentives attached or were mentor-based. Younger et al. concluded:

There is a pressing need for evidence on widening participation interventions in the UK context, and nuanced interpretation and development is required to ensure that HEIs develop interventions appropriate to their own context. (770)

The review highlights the lack of good quality, robust evidence available in this area of enquiry, especially in the UK.

The third study involves Heaslip et al.'s (2020) recent systematic literature review. They found the majority of the 26 studies (16) were qualitative. Most evaluated specific activities, individual student experiences and perceived benefits. Few reported long-term impact or the effect of outreach strategies in terms of HE engagement by non-traditional students. Neither did studies consider the effects of institutional structural inequalities. Articles reviewed by Heaslip et al. are critiqued using Bourdieu's concepts of habitus, fields and social, cultural and economic capital. They utilise this lens to specifically highlight the *'dangers of narrowly framing government and institutional policies without acknowledging underlying structural factors'* (49).

The fourth and final piece of research was conducted by Harrison and Waller (2017). Their Anglo-centric study considers the complexities of evaluating HE outreach activities aimed at encouraging non-traditional students to apply to HEIs. They report on the increasing pressures placed on universities by the government (BIS, 2014) for

evidence-based practice to prove the effectiveness, impact and value for money of outreach activities. With outreach activities in England costing the public purse around £175 million a year (OFFA, 2016), it is hardly surprising that the government requires evidence of impact. Harrison and Waller suggest a '*small steps*' approach, set within a theory of change framework, as the most effective way forward. Barat (2019) also favours using a theory of change approach and did so successfully to evaluate the impact of the Academic Enrichment Programme aimed at widening access to selective universities for non-traditional students. Harrison and Waller believe a theory of change approach helps educators and policymakers alike to understand the '*particular contribution made by discrete activities within a wider portfolio*' (81). They identify the following five key challenges that they believe are inherent in evaluating outreach activities:

- Selection and self-selection biases, when students attending outreach activities may not necessarily be representative of the school or area they come from but are pre-selected as those that are most likely to positively respond to the intervention in terms of increasing their likelihood of applying to university.
- Priming and social desirability effects, leading to students giving evaluators the responses they perceive they want; sometimes known as social desirability bias.
- Deadweight and leakage, when activities fail to reach their intended targets and numbers are supplemented with 'relatively advantaged' students. This not only wastes resources but can potentially overinflate the effectiveness of the activity as the individuals taking part would, in all likelihood, have been more predisposed to applying to university.
- Complexity and bounded rationality, and a tendency to take a reductionist cause and effect view of impact rather than considering the more socially complex, often non-linear nature of both young people's lives and the delivery of outreach activities.
- Realist evaluation, which places an individual's choice at the centre.

They suggest evaluating outreach activities should employ the following five principles or '*small steps*'. Firstly, an articulation of a clear theory of change that should recognise both the starting point as well as the distance travelled by taking a holistic view of the outreach approach. Secondly, be critical about causality, asking why the intervention has, or has not been effective and being mindful of outside contributing factors. Thirdly, be critical of measurability, ensuring that it is fit for purpose and asks the relevant searching questions especially those around knowledge and behaviours. Fourthly, use appropriate and realistic timescales. They suggest there is value in tacking impact at certain points and giving distance from activities over time. This allows for the assessment of longer-term, sustained impact. Finally, focus on educational disadvantage and specific aspects such as the quality of IAG, parental or school input and participation rates.

These five small steps should be given carefully consideration at the evaluation design stage and potentially form the building blocks of any good-quality evaluation concerning the impact of HE outreach activities.

Theory of change

According to Laing et al. (2015), theory of change was defined by Fullbright-Anderson et al. (1998) as '*a systematic and cumulative study of the links between activities, outcomes and context of the initiative*' and outlines four theory of change models: deductive, inductive, mental and collaborative. For each, they provide real-life examples of how they have been used to carry out education evaluations. The model most relevant to the Uni Connect project is the deductive model. This theory of change approach is developed by collating evidence, mainly by reviewing the literature around the subject under investigation, to ascertain 'how the world works'. This knowledge is then translated into simplified steps of change that can be used to track changes within a specific context. The main components of a deductive model are the literature review that informs the gathering of quantitative data which is then followed up with qualitative measures, such as interviews and focus groups. Their example is based on an evaluation of out of school activities and their effect, or not, on closing the education gap for disadvantaged children in primary schools. Another key aspect of the theory of change approach '*is that it requires organisations to reflect on and challenge their existing ways of working – to question why they do things they may have been doing for years*' (Lewis et al., 2019:734). Relating this to the Uni Connect UK context, many schools have established HE outreach activities that have been delivered by known and trusted providers for several years, however, few have taken time to assess their effectiveness. Whilst the theory of change deductive model is still in its infancy, it would appear to be an appropriate framework in which to evaluate HE outreach activities delivered in schools under Uni Connect.

Summary: Implications and applications

This review of literature has explored the main areas covered by the Uni Connect programme and associated evaluation namely, IAG, the HE application process, transition into university and the impact of outreach activities. The literature demonstrates how complex the field of enquiry is and highlights how the identified themes are interconnected; literature does not necessarily fall into discreet categories.

Bourdieu's concepts of habitus and social and cultural capital remains a popular lens with those researching and evaluating the engagement of non-traditional students with HE (from Reay 2004 through to Thompson 2019). Such concepts have been, and continue to be, employed (Diamond et al. 2014) to try and explain both why these students are disadvantaged in the first instance (their familial and school habitus) and why, despite more than 20 years of widening access policy initiatives, the gap between traditional and non-traditional students remains stubbornly difficult

to close (Social Mobility Commission, 2019). Habitus, both private and public, familial and school, is by its very nature stubborn and therefore slow to change. Likewise, it takes time, often generations, to acquire the required social and cultural capital that empowers non-traditional students to compete for places at HE Institutes on a par with their already savvy counterparts, as Wyness (2017) points out in her study into non-traditional students, knowing the rules of the admission process game.

The situation in regard to non-traditional students' access to, and quality, of IAG through schools seems to have changed little in recent years. Foskett's study in 2008 found low-attaining schools were unable to help their non-traditional students break the cycle of inequality inherent in the system or perpetuated by the student's familial habitus. The later articles by Diamond et al. (2014) and more recently, Thompson (2019), highlight that there is still much work to do in this area before non-traditional students have parity with their more 'traditional' counterparts, in accessing HE. This is also true when it comes to the actual application process as illustrated by the recent studies by Wyness (2017), Rose et al. (2019) and O'Sullivan (2019). Successful applications to elite universities by non-traditional student from disadvantaged backgrounds that attend schools without a track record of sending students to prestigious universities is still the exception rather than the norm. The role parents play in advising, encouraging and influencing students to apply to university, and being successful in doing so, is strongly evidenced in the literature, particularly through the work of Khattab (2015). This large data set clearly highlights the importance of parental aspiration and expectation.

Studies concerning transition into HE come mainly from the perspective of first year university students, after the fact, rather than from the perspective of the school or college student. Interventions were found to be most effective when timely and relevant. This was also the case with all forms of post-18 IAG concerning future pathways and the HE admissions process. Just one transition study came from the school/college perspective (Money et al., 2019), albeit the study was conducted with teachers rather than students. As well as the obvious gap in evidence around transition, from the school/college perspective, the student voice appears to be largely absent in this area of enquiry.

Impact evidence for outreach activities is both scarce and often of poor quality, as evidenced by the recent systematic review conducted Younger et al. (2019) and Heaslip (2020). Studies that do meet quality criteria come mainly from the US. In the UK, where robust evidence does exist, they are linked primarily to key policy areas such as STEM (Aslam et al. 2018) and are therefore of limited value in the Uni Connect context. This literature review highlights the urgent need for more robust evaluation evidence on what works and what does not work, to effectively engage non-traditional students with HE and/or post-18 study.

The dearth of good quality studies found for this review, across the various areas of enquiry, highlights the difficulties inherent in researching this sector and particularly of conducting robust impact evaluations. However, employing a theory of change

framework has been suggested as one possible way of evaluating impact over the lifetime of such programmes by helping to illuminate the numerous aspects that need to be taken into consideration in any given context (Harrison and Waller, 2017). The use of SDT to help explain the impact of outreach activities is still evolving but could potentially help to explain why some non-traditional students are more successful at accessing HE than others. The notion of intrinsic and extrinsic motivation within SDT specifically warrants further investigation (Reeve, 2012).

It is clear from the literature available across all areas covered in this review that despite a wealth of studies going back to the 1980s, concerning non-traditional students and HE, few have been able to evidence impact in a robust manner. This only serves to highlight the continuing difficulties of carrying out rigorous, high-quality evaluations in this area of enquiry that produce valid and reliable findings.

The literature appears to validate, to some degree, the proposed theoretical approaches taken, and the evaluation design employed to evaluating the LiNCHigher partnership's Uni Connect programme. The evaluation design is built largely on the five steps recommended by Harrison and Waller (2017). Theoretically it primarily employs Bourdieu's concepts of habitus and cultural capital which is overlaid with Ryan and Deci's (2000) self-determination theory. The former provides an overarching conceptual language in which to facilitate the discussion (Hayton and Howell, 2016; Diamond et al., 2014) and position of non-traditional students in HE, whilst the latter, in practice, creates the potential for a testable framework to assess the impact of outreach activities designed to increase student engagement (Reeve, 2012). The literature also gives credence to using a theory of change framework (Laing et al., 2015; Lewis et al., 2019) to track the outcomes of proposed outreach activities for individual case study schools in this complex area of enquiry. The literature suggests that accurate, good quality, succinct IAG delivered in a timely fashion will enable young people to make informed choices regarding their progression routes post-18 (Thompson, 2019); that be it academic or vocational. The literature also strongly suggests support from both schools and parents is important (Diamond et al., 2014; O'Sullivan, 2019; Roska and Silver, 2019; Rose et al., 2019; Thompson 2019). While the Uni Connect programme spans several subject areas, this review is scoping rather than systematic. Many of the articles reviewed relied on secondary literature synthesis, (i.e. the reviews of others) and the interpretation of the authors. This review was also carried out after Phase 2 of the programme had commenced rather than before.

Footnote

Since starting this review, the Covid-19 pandemic crisis forced the closure of schools in March 2020 and all school-delivered outreach activity by Uni Connect partnerships ceased. The OfS subsequently directed partnerships to *'engage learners using alternative delivery models, address the IAG needs of students in the current HE admissions cycle and expand the programme to support broader groups of underrepresented students, not just those in target schools and wards'* (OfS, 2020).

In practice, this means outreach delivery is primarily shifting to alternative online methods which requires evaluation methodologies to evolve accordingly.

References

Addi-Racah, A. and Israelashvili, M. (2014) The Long-Term Effects of a University Outreach Programme: Implications on Higher Education Enrolment. *Higher Education Policy*, 27, 111-130.

Arksey., H. and O'Malley, L. (2005) Scoping studies: Towards a methodological framework. *International Journal of Social Research Methodology*, 8(1):19–32.

Ball, S. J. and Vincent, C. (1998) 'I heard it on the grapevine': 'Hot' knowledge and school choice. *British Journal of Sociology of Education*, 19(3), 377-400.

Barkat, S. (2019) Evaluating the impact of the Academic Enrichment Programme on widening access to selective universities: Application of the theory of change framework. *British Educational Research Journal*, 45(6), 1160–1185.

Beaumont, C., Moscrop, C. and Canning, S. (2016) Easing the transition from school to HE: Scaffolding the development of self-regulated learning through a dialogic approach to feedback. *Journal of Further and Higher Education*, 40(3), 331-350.

BIS (Department for Business, Innovation and Skills) (2014) *National Strategy for Access and Student Success in Higher Education*. London: BIS. [Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/299689/bis-14-516-national-strategy-for-access-and-student-success.pdf]

BIS (Department for Business, Innovation and Skills) (2015) *Fulfilling our Potential: Teaching Excellence, Social Mobility and Student Choice*. London: BIS. [Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/474227/BIS-15-623-fulfilling-our-potential-teaching-excellence-social-mobility-and-student-choice.pdf]

Bourdieu, P. (1977) *Outline of a Theory of Practice*. Cambridge: Cambridge University Press.

Bourdieu, P. (1984) *Distinction: A Social Critique of the Judgement of Taste*. Cambridge, MA: Harvard University Press.

Bourdieu, P. (1986) 'The Forms of Capital', in Richardson, J. (ed.) *Handbook of Theory and Research for the Sociology of Education*. New York, Greenwood, pp.241–258.

Brooks, R. (2004) "My mum would be as pleased as punch if I actually went, but my dad seems a bit more particular about it": Paternal involvement in young people's Higher Education choices. *British Educational Research Journal*, 30(4), 496-514.

Christie, H. (2007) Higher Education and Spatial (Im)Mobility: Non-Traditional Students and Living at Home. *Environment and Planning A*, 39(10), 2445–2463.

Cook, A., Rushton, B. S. and Macintosh, K. A. (eds) (2006) *Student Transition and Retention*. Coleraine: University of Ulster.

Diamond, A., Roberts, J., Vorley, T., Birkin, G., Evans, J., Sheen, J. and Nathwani, T. (2014) *UK review of the provision of information about Higher Education: Advisory study and literature review*. Leicester: CFE Research.

Education Policy Institute (2019) *Geographical Analysis Pack Education in England: Annual Report 2019*, Education Policy Institute and Fair Education Alliance.

Foskett, N., Dyke, M. and Maringe, F. (2008) The influence of the school in the decision to participate in learning post-16. *British Educational Research Journal*, 34(1), 37–61.

Gewirtz, S. (2001) Cloning the Blairs: New Labour's programme for the re-socialization of working-class parents. *Journal of Educational Policy*, 16(4), 365-378.

Harrison, N. and Waller, R. (2017) Evaluating outreach activities: Overcoming challenges through a realist 'small steps' approach. *Perspectives: Policy and Practice in Higher Education*. 21(2-3), 81-87.

Harvey, L., Drew, S. and Smith, M. (2006) *The First Year Experience: A Review of Literature for the Higher Education Academy*. York: Higher Education Academy.

Hayton, A. and Bengry-Howell, A. (2016) Theory, evaluation and practice in widening participation: A framework approach to assessing impact. *London Review of Education*. 14(3), 41-53.

Heaslip, V., Hutchings, M., Collins, B., Crowley, E., Eccles, S., Hunt, C., Tooth, R. and Wardrop, A. (2002) Situating the evidence for impact of outreach strategies: A systematic review for improving access to higher education. *Widening Participation and Lifelong Learning*. 22(1), 25-55.

Holton, M. (2018) Traditional or non-traditional students?: Incorporating UK students' living arrangements into decisions about going to university. *Journal of Further and Higher Education*. 42(4), 556-569.

Hoare, T. and Mann, R. (2012) *The Impact of the Sutton Trust's Summer Schools on Subsequent Higher Education Participation*. London: Sutton Trust.

Hughes, G. and Smail, O. (2015) Which aspects of university life are most and least helpful in the transition to HE? A qualitative snapshot of student perceptions. *Journal of Further and Higher Education*, 39(4), 66-480.

Khattab, N. (2015) Students' aspirations, expectations and school achievement: What really matters? *British Educational Research Journal*, 41(5), 731-748.

Laing, K. and Todd, L. eds. (2015) *Theory-based methodology: using theories of change for development, research and evaluation*. Research Centre for Learning and Teaching, Newcastle: Newcastle University.

Leathwood, C. and O'Connell, P. (2003) 'It's a Struggle': The Construction of the 'New Student' in Higher Education. *Journal of Education Policy*, 18(6), 597-615.

Lewis, I., Corcoran, S. L., Juma, S., Kaplan, I., Little, D. and Pinnock, H. (2019) Time to stop polishing the brass on the Titanic: Moving beyond 'quick-and-dirty' teacher education for inclusion, towards sustainable theories of change, *International Journal of Inclusive Education*, 23(7-8), 722-739. [Available at: <https://www.tandfonline.com/doi/pdf/10.1080/13603116.2019.1624847?needAccess=true>]

Money, J., Nixon, S. and Graham, L. (2019) Do educational experiences in school prepare students for university? A teachers' perspective. *Journal of Further and Higher Education*, 1-15.

Munn, Z., Peters, M. D. J., Stern, C., Tufanaru, C., McArthur, A. and Aromataris, E. (2018) Systematic review or scoping review? Guidance for authors when choosing between a systematic or scoping review approach. *BMC Medical Research Methodology*, 18(143), 1-7.

Nelson, K. J., Smith, J. E. and Clarke, J. A. (2011) Enhancing the Transition of Commencing Students into University: An Institution Wide Approach. *HE Research and Development*, 1, 1-15.

OFFA (Office for Fair Access) (2016) *Outcomes of Access Agreement Monitoring for 2014-15*. Bristol, OFFA.

OfS (Office for Students) (2019a) *Guide to the access and participation data resources*. [Available at: <https://www.officeforstudents.org.uk/data-and-analysis/access-and-participation-data-dashboard/guide-to-the-access-and-participation-data-resources/findings-from-the-data/>]

OfS (Office for Students) (2019b) *National Collaborative Outreach Programme*. London: OfS. [Available at: <https://www.officeforstudents.org.uk/advice-and->

guidance/promoting-equal-opportunities/national-collaborative-outreach-programme-ncop/]

OfS (Office for Students) (2020) *Uni Connect programme: An update from the Office for Students* [Available at: <https://www.officeforstudents.org.uk/media/2160f8e2-2c05-4156-90e2-9ee8d868007b/uni-connect-programme-an-update-from-the-office-for-students.pdf>]

O'Sullivan, K., Robson, J. and Winters, N. (2019) 'I feel like I have a disadvantage': How socio-economically disadvantaged students make the decision to study at a prestigious university. *Studies in Higher Education*, 44(9), 1676-1690.

Reay, D. and Ball, S. (1998) 'Making their minds up': Family dynamics of school choice. *British Educational Research Journal*, 24(4), 431-448.

Reay, D., Crozier, G. and Clayton, J. (2009) 'Strangers in paradise'? Working-class students in elite universities. *Sociology* 43(6), 1103–1121.

Reay, D., Crozier, G. and Clayton, J. (2010) 'Fitting In' or 'Standing Out': Working-Class Students in UK Higher Education. *British Educational Research Journal* 36:1, pp.107-124.

Reeve, J. (2012) A self-determination theory perspective on student engagement, In Christenson, S. L., Reschly, A. L. and Wylie, C. (eds.) *Handbook of research on student engagement*. Boston: Springer, pp.149–172.

Roksa, J. and Silver, B.R. (2019) "Do-It-Yourself" university: Institutional and family support in the transition out of College. *The Review of Higher Education*, 42(3), 1051-1071.

Rose, A. and Atkin, C. (2007) Family literacy in Europe: Separate agendas? *Compare: A Journal of Comparative Education*, 37(5), 601-615.

Rose, J., Tikley, L. and Washbrook, L. (2019) Learning to play the game: How schools with below average attainment can support the decision-making processes for high-potential learners in applying for university. *British Education Research Journal (BERJ)*, 45(4), 856-872.

Ryan, R. M. and Deci, E. L. (2000) Self-Determination theory and the facilitation of intrinsic motivation, social development and wellbeing. *American Psychologist*, 55(1), 68-78.

Social Mobility Commission (2019) *State of the Nation 2018-19: Social mobility in Great Britain*. London: Her Majesty's Stationery Office.

Thompson, D. W. (2019) Aspirations and ambiguities: The need for focused IAG for school pupils considering progression to higher education (HE). *Journal of Further and Higher Education*, 1-15. [Available at: <https://doi.org/10.1080/0309877X.2019.1616081>]

Torgerson, C., Hall, J. and Light, K. (2012). Systematic reviews. in Arthur, J., Waring, M., Coe, R. and Hedges, L.V (eds) *Research Methods and Methodologies Education*. London: Sage, pp. 217-230.

Torgerson, C. (2003) *Systematic Reviews*. London: Bloomsbury Publishing.
[Available at: https://books.google.co.uk/books?id=yp6vAwAAQBAJ&printsec=frontcover&source=gbs_ge_summary_r&cad=0#v=onepage&q&f=false]

UCAS (2019) *End of cycle report 2018: Patterns of equality in England*. UCAS.
[Available at: <https://www.ucas.com/file/212841/download?token=fR1vSwMY>]

Veldman, J., Meeussen, L. and van Laar, C. (2019) A social identity perspective on the social-class achievement gap: Academic and social adjustment in the transition to university. *Group Processes and Intergroup Relations*, 22(3), 403-418.

Vennix, J., den Brok, P. and Taconis, R. (2018) Do outreach activities in secondary STEM education motivate students and improve their attitudes towards STEM? *International Journal of Science Education*, 40(11), 1263-1283.

Vennix, J., den Brok, P. and Taconis, R. (2017) Perceptions of STEM-based outreach learning activities in secondary education. *Learning Environments Research*, 20(1), 21-46.

Wyness, G. (2017) *The rules of the game: Disadvantaged students and the admissions process*. London: The Sutton Trust.

Younger, K., Gascoine, L., Menzies, V. and Torgerson, C. (2019) A systematic review of evidence on the effectiveness of interventions and strategies for widening participation in higher education. *Journal of Further and Higher Education*, 43(6), 742-773.