

Aspiring to Higher Education? Choice, complexity and confidence in secondary students' decision-making

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Abstract

This article reports on a programme designed to encourage young people who are currently in secondary school (age range 11-18) to apply to university. *Explore University* is a collaborative outreach programme provided by a small group of Higher Education Institutions in the West Midlands and Staffordshire areas of the UK. Participants were 46 high school students aged 14-16 years old. There has been increasing importance placed on the value of appropriate Information, Advice and Guidance (IAG) for students considering attending university in the UK (Diamond et al., 2014). A wide range of diverse factors, contexts and behaviours impact on how IAG is accessed and consumed, and how decisions about progression to higher education are made (Moogan & Baron, 2003). Q-methodology (Q) was used in this study as it was believed that this approach could find communalities in participants' perspectives that may not have been apparent had more traditional data collection methods been used. Four factors were produced that represented a range of different perspectives on attending university. The findings were associated with young people's self-perception as learners and the influence these perceptions had on their strength of commitment to attend university. These findings are relevant to any consideration of both IAG at secondary school and widening participation in higher education at a time when there are increasing financial pressures on university recruitment, and smaller pools of diverse potential applicants being targeted.

Keywords

University, Secondary School, IAG, Widening Participation

Introduction

This study was commissioned by 'Explore University' to evaluate their 2016-2017 programme that endeavoured to inspire young people to attend university. In an attempt to address social inequalities throughout university level education, UK government policy developed a number of initiatives which encouraged and supported more applications from students with less "traditional backgrounds". One such outcome was the National Network for Collaborative Outreach. It involved a network of universities led by the University of Wolverhampton, in collaboration with Harper Adams, Keele and Staffordshire Universities and Telford College of Arts and Technology. These institutions were tasked to work together to coordinate, their outreach activity to schools and colleges in a defined geographical area through a single point of contact. The Explore University programme sought to raise awareness, provide information and organise experiences for people of school age who might find value in studying in higher education. The range of activities included campus visits, subject taster days, information, guidance and advice sessions in schools and summer schools.

The present study investigated the views of young people participating in the interventions and activities provided by Explore University. The objectives of the study were to identify shared perspectives towards applying to university, to evaluate if Explore University had influenced or supported participants' perspectives and to analyse expectations and strength of commitment to apply to university.

Literature

Complexities of Choice-making

There is increasing interest in the provision of information, advice and guidance (IAG) regarding careers and progression to higher education (HE) in the United Kingdom (Diamond et al., 2014). The Higher Education Funding Council for England (HEFCE), the National Student Forum (NSF), a House of Commons Committee, and the Confederation of British Industry (CBI) have all produced reports that have included discussions about available IAG for prospective students (Oakleigh Consulting and

Staffordshire University, 2010). How IAG is accessed and consumed is determined by a diverse range of factors. These include “social” and “environmental contexts”, a complex mix of peer relationships, behavioural traits, and environmental factors (e.g. home lives). These are mediated through emotional and cognitive behavioural approaches to knowledge acquisition and usage, augmented by social networks (Moogan and Baron, 2003).

Socio-economics, culture, schools and the influence of key people in students’ lives are considered important when choosing progression routes. Students’ choices of careers, courses and universities do not always follow a completely rational process; they can be dependent upon intuitive and emotional responses and what feels right (Diamond et al., 2014). Evidence suggests that students are eschewing choices related to subject interest and a passion for study, leaning more towards the expected benefits of particular career paths (Maringe, 2006). An international survey of over 67,000 students world-wide indicated that 54% placed “a high graduate employment rate” in their top five factors relating to university quality (QS Enrolment Solutions, 2018). However, for those from less affluent families, choice can also be a financial and localised decision based upon reducing the cost of going to university. This has implications for the provision of IAG relating to finance, benefits, and costs (Callender and Jackson, 2008).

Choices vary depending on life experience, which is nuanced and specific to individual circumstances. This is especially important to first generation students and their families where choice is limited by necessity. Choices for more affluent communities are shaped and sustained by social reproduction and cultural capital (Reay and Ball, 1998). With respect to degree choice, some “students could be described as active researchers” but others rely on “serendipity and intuition” (Reay et al., 2005 :160). For families with less social and cultural capital to make informed choices, children have a “greater power influence” and choice is left more to the child (Diamond et al., 2014 :74). IAG offered by teachers, careers advisors (where they still exist), schools and universities may therefore be critical. Whilst some argue that choice is complex, others observe a “convergence” in students’ choice-making, suggesting that intention to participate in HE is a decision made “irrespective of social class or gender”, illustrating “remarkable homogeneity” (Kettley and Whithead 2012 :503-505). Paradoxically, others suggest that there are patterns in decisions to attend university by ethnicity and

identity, but these intersect with social class (Ball et al., 2002). Both “capital and habitus play central roles in shaping aspiration towards HE and in gaining access to HE institutions” (Demack et al., 2012, no page number). Complexities of choice and provision therefore have the potential to create significant barriers through the intersectionality of gender, culture, ethnicity and socioeconomic status (Bowes et al., 2015).

Other factors involved with decision-making include family and peer support, education networks, positive attitudes towards education, and relevant and timely IAG. College and sixth form discussions about participation in Higher Education are regarded as very important, as are employability and financial security (Bowes et al., 2015). Possible solutions include tailoring support, raising awareness, empowering young people and “supporting young people to access and make effective use of information, advice and guidance for them and their families to build a relevant choice architecture” (Bowes et al., 2015 :15).

Parental influence

There is quantitative and qualitative evidence to suggest that parents have a greater influence on career choice than teachers and form a more integral part of the decision-making process (Kniveton, 2004; Smyth and Banks, 2012; Haynes, 2013). Statistical analysis has concluded that an increase in household income is directly related to an increase in the probability of making a positive decision to attend university (Oliveira and Zanchi, 2004). However, parents of lower socio-economic status (SES) are less well informed and find it more difficult to obtain and determine what is accurate and reliable information (Haynes, 2013 :461). Families in low SES locations take on greater influence as students become more reliant on their parents (Smyth and Banks, 2012); however, for post-16 education options, parents can also be “the weakest link” (Foskett 2008 :53-54). Parental influence may be shaped by several factors including social and cultural capital, being involved in support networks, facilitating access, and economic capital. However, “disadvantaged students and their families tend to be more dependent on their schools for access to the resources” (Smyth and Banks, 2012 :272). Correspondingly, some young people observe that their parents are simply unaware of what options are available to them when choosing study routes in school (Haynes, 2013). There are “close connections between material structures, agency,

and the roles played by mothers and fathers” influenced by their cultural and social capital (Brooks, 2004 :511). However others conclude that, in terms of making decisions to apply to ‘elite’ universities, there is limited evidence of working class parental attitudes that might be regarded as ambivalent or negative. In fact, “parents of working class children were quite supportive” (Kettley and Whitehead 2012 :507). Nevertheless, such parents can lack practical experience and skills in terms of the application process, a key point in considering IAG (Kettley and Whitehead, 2012).

For families with limited capital, interventions provide the potential to be transformative and to “challenge entrenched family views and perceptions that higher education is not for ‘people like them”” (Bowes et al., 2015 :89). Smyth and Banks (2012) investigated the different forms of social reproduction in a school serving ‘privileged’ families compared to a school that attracts students from a less advantaged neighbourhood. Their conclusions are a complex synthesis of choice-making, family, peer support and school habitus that reflects the analysis of others (Reay, 2005; Thomas, 2011). The aspirations of parents can be “channelled” to children through their existing relationships, this can play “a key role in determining the ways in which expectations and achievements are associated”; emphasising the need for effective IAG to support those parents who do not possess the knowledge or resources to help their children (Khattab, 2015 :734-5). Unfortunately, “there is no clear evidence that IAG is especially effective for those in most need of it” (Nicoletti and Berthoud, 2010 :9).

Peer relationships

The influences of friends and peers on students’ HE choices are often formed around a hierarchical order based on ability and social networks. Decisions are informed by how young people relate to their peers (Brooks, 2004). However, such “grapevine knowledge” is uneven; this also applies to the “time and resources available to commit to information and knowledge-gathering and accessing professional support structures and expertise” (Ball et al., 2002 :353). Choice is related to class and the concept of the ‘contingent’ and ‘embedded’ choosers, the former “short term and weakly linked to ‘imagined futures’ – part of an incomplete or incoherent narrative... first-time choosers with no family tradition of higher education” (Ball 2002 :337). Some young people have little knowledge or understanding of employing realistic plans for

their future. Good quality and impartial school advice are consistently elusive (Haynes 2013).

First generation students may be disadvantaged, not knowing where to look for information: “some groups of prospective students display a much stronger appetite for information than others” especially those with better GCSE outcomes (Oakleigh Consulting and Staffordshire University, 2010 :73). Others suggest that students’ educational choices are not simply framed by class but is complex and influenced by the “totality of experience” (Kettley and Whitehead 2012 :505).

Schools

The barriers that students face also bring institutional habitus into focus. For state schools, “higher education applications appear to be less ambitious even for high achieving students” when compared to independent schools that are much more proactive (Bowes et al., 2015 :77). Schools offered limited expectations in terms of education and career progression. Bowes’ research suggested that some state schools do not present realistic appraisals of opportunities and lack ambition, leaving many young people to rely on their own research. Institutional habitus can create contrasting aspirations and where contrasting viewpoints occur with a gap between the higher aspirations of students (and indeed their families), compared to teachers and counsellors (Smyth and Banks, 2012; Thompson, 2019).

Schools play an integral part in the decision-making process in relation to curriculum options, careers, or further study. It is suggested that schools serving low socio-economic status (SES) areas provide a very different IAG service than those operating in more affluent areas and are more geared to courses perceived as lower status, reflecting and reinforcing the academic/vocational divide. Limited social and cultural capital (with respect to educational choices) means that children and families from low SES backgrounds rely more strongly on school-based IAG, yet “there are characteristics of individual schools, whether organisational, structural or cultural, that promote or dampen young people’s aspirations to continue their education or formal training” (Foskett et al., 2008 :38).

Teachers and guidance professionals

The knowledge of teachers and the role of guidance professionals are important. They can play a critical role in supporting young people from families with little or no background or tradition of post-16 education. “Teachers responsible for HE admissions emerge as significant factors in this landscape... the agency of individual teachers is an important factor in creating the right conditions for students”, holding “unique positions of influence” (Oliver and Kettley, 2010 :750). However the low expectations of students by some teaching staff can lead to these students being channelled into courses seen as lower status, reinforcing stereotypes and social reproduction. Compounding these issues is the reliability of IAG, with some students being inadequately informed of opportunities available (Haynes, 2013).

Students create a powerful and self-fulfilling sense of their own abilities by observing the differential teacher treatment accorded to young people perceived as high and low achievers. They revise their expectations of their own potential – and their sense of fulfilment at their achievements – and perform according to these perceived expectations (Brattesani et al., 1984; Schunk et al., 2008; Timmermans, de Boer & van der Werf, 2016). Some studies have suggested teachers demand “better performance from those children for whom they had higher expectations and were more likely to praise such performance when it was elicited” (Brophy & Good, 1970 :365; cited in Entwisle, 2018; Schenke et al., 2018). In contrast teachers allowed students for whom they held low expectations to perform poorly without comment or support, offering less praise for good performance, despite its lower occurrence rate. These findings are indicative of “the behavioural mechanisms involved when teacher expectations function as self-fulfilling prophecies” (Brophy & Good, 1970 :365, cited in Urhahne, 2015).

Marsh & Parker (1984) observed that students in low-SES/low-ability schools had higher self-concepts than those in high-SES/high-ability schools; duplicating the findings of Soares & Soares (1971) & Trowbridge (1972). Secondly, students who attend a high-SES school demonstrated a somewhat higher level of academic ability and achievement but a concomitant poorer academic self-concept when contrasted with their peers attending low-SES schools. Student self-perception therefore can be significant when considering the suitability of advice about trajectories to HE.

Universities

Higher education institutions (HEIs) also play a role in supplying information, advice and guidance to inform decision-making processes (see Diamond et al., 2014). These include employment prospects, bursaries, course content and aspects of student life. However, clarification in the use of “technical language” relating to HE is needed as this can be a barrier to understanding (Oakleigh Consulting and Staffordshire University 2010 :75). Mentoring systems help promote and encourage enrichment, especially where there is the risk of a deficit in support (Rogers, 2009). One evaluation suggested that outreach activities improved confidence, social skills and knowledge (Aimhigher West Midlands, 2017). Mentors help dispel ‘myths’ and demonstrate opportunities, “removing the fear of the unknown by familiarising learners; encouraging confidence and self-belief. Talking to undergraduates was a critical part of the process” (Passy and Morris, 2010 :46). However, an over-inflated or under-estimated impression of one’s own capacity can lead to inaccurate decisions about choice of university and course: “The challenge... is how to communicate with prospective students who think they already know enough?” (Brennan, 2001 :222-223). Providers of information about HE need to “engage not only with prospective students, but also with those who shape their understandings and expectations” (Diamond et al., 2014 :5-6).

Interventions and decision-making

Thornton et al. (2014) observed high levels of commitment from schools and colleges, concluding that best practice should include an institution-wide culture of raising aspirations. This includes universal and targeted approaches, specialist and knowledgeable staff with respect to careers and access to HE, early interventions from Key Stage 3 (Years 7-9), and advice and support on applications. Bowes et al.’s report provides a set of wide-ranging conclusions relating to raising aspiration and addressing barriers. For example, a series of “age-and stage-appropriate interventions” including early engagement with young people, effective IAG, informing parents of pathways, careers advice about the labour market etc. (Bowes et al., 2015 :89-93). However, the authors remind us of what others have reiterated: that decision-making is mediated through a complex composite of social, cultural, economic, personal, peer group, family and institutional habitus, from which it is difficult to identify one significant factor (Bowes et al., 2015). This reflects the “socially embedded nature

of decision-making” patterned by gender, ethnicity and class mediated through different dispositions towards HE (Brooks, 2002). One needs to acknowledge the:

“...complex and sophisticated nature of individual and familial decision-making.... (causing) many state school students experienced a distance between the home and school that rendered choice making more problematic.... Working-class students were driven by necessity which made certain choices unthinkable for them” (Reay et al., 2005 :161).

Other studies (Thompson, 2019) point to the ambiguities and uncertainty for students in their career aspirations and choice of HE, calling for clearer information, advice and guidance; and more scaffolding to support families in their decision-making processes. Combined with some students not feeling they have sufficient information, this places even greater importance on how schools, universities and professionals shape expectations, in terms of progression to university (Thomas, 2011). There is “a need for providers of information about HE to engage not only with prospective students, but also with those who shape their understandings and expectations, or even those who make the decisions on their behalf”. A reflective approach to providing IAG, encouraging students to reflect on their preferences and reasons for their choice-making is recommended (Diamond et al., 2014 :5).

Methodology

The present study aimed to investigate whether secondary students, attending Explore University activities, aspired to attend Higher Education. There were three main objectives. Firstly, the study sought to identify shared perspectives towards applying to university. Secondly, it aimed to evaluate if Explore University had influenced or supported participant’s perspectives and finally, it sought to investigate and analyse expectations and strength of commitment to apply to university.

The use of Q-methodology

The interpretivist focus of the study was on the participants’ positions, acknowledging that these positions and one’s actions can alter over time and can be dependent on situational circumstances. Findings can then be compared and contrasted between different periods of time or between different places (Cohen *et al.*, 2011). To identify shared perspectives, this study used Q-methodology. Q-methodology is not ordinarily

used as an evaluation tool, however the research team felt that this approach could find communalities in participants' perspectives that may not have been apparent if traditional data collection methods had been used. Q-methodology provides a means of gathering quantifiable data from highly subjective viewpoints (Brown, 1997). It investigates the complexity in different participant's positions on a given subject where differences of opinion are expected (Combes, *et al.*, 2004). In doing so, "it is a useful tool for exploring opinions, perspectives and attitudes, without directly requiring participants to expressly state (or even understand) their overall position on a topic" (Rhoades and Brown, 2019 :88). It involves participants sorting a set of statements onto a distribution grid, shaped as a reversed pyramid. Participants sort these cards based on whether they agree or disagree with each statement. This process encourages serious thought about every choice and requires the review of previous choices until they are satisfied that their rankings truly represent how they feel at that time. There is no right or wrong response in the card sort (Brown, 1991/1992).

Developing the set of statements

The set of statements covered differing perspectives on the participant's perception of themselves as learners, perceptions of support groups, such as family and friends and differing views on aspiring to Higher Education. The statements were derived by the research team (based on the teams experience and relevant literature) and piloted by young people that had experienced Explore University activities before main data collection. Examples of statements included: *I can't wait to start uni; I was surprised that people think I could go to uni; my family really wants me to go to uni and; the teachers think highly of me at my school.* There were also five statements that specifically mentioned Explore University. They were as follows:

- *I am much more positive about uni than I was before the Explore University programme*
- *I have found the Explore University taster sessions helpful in deciding about uni*
- *I would have gone to uni regardless of the Explore University programme*
- *The Explore University programme has encouraged me to consider uni*
- *I would never have thought about uni if it was not for Explore University*

These were included to evaluate whether the Explore University activities were beneficial for the participants and how important they were in relation to the other general statements on aspiring to Higher Education. We were aware that this measure may only represent short-term impact of the programme for these participants. As detailed earlier their positions could later alter and/or be influenced by for instance the perspectives, opinions and actions of others and their academic achievements at the age of 18.

The distribution had a 7 point scale from -3 (strongly disagree) to +3 (strongly agree) and had 36 statements in total. Table 1 shows an example of one of the completed Q-sorts, showing the distribution grid and statements used.

+3	11 My family would be really proud if I went to uni	13 Uni seems a more friendly place than I used to think						
+2	6 I can't wait to start uni	9 I would have gone to uni regardless of the Explore University programme	10 My family really wants me to go to uni	12 I could easily cope with going to uni	27 I would not find uni too big for me			
+1	17 I think I will fit right into uni	22 I'd make lots of new friends at uni	23 I'd get a good job by going through uni	25 I am pretty good at my school work	28 There are more choices to study what I want at uni than at school	30 I have changed my mind about my future	36 Even though I am a bit nervous, I am looking forward to going to uni	
0	3 I would definitely still keep in touch with all my friends if I went to uni	4 I would feel better about myself if I went to uni	8 The amount of support available in uni sounds great	15 Uni seems a good idea for me	16 Most of my friends will go to uni	21 Uni is nothing like school	34 I have learned lots about uni that I never imagined	35 Uni seems like the best option for me now
-1	1 I am much more positive about uni than I was before the Explore University programme	14 I was surprised that people think I could go to uni	18 If I went to uni I would not be worried about keeping up with the work	24 I would be just as clever as the other students at uni	26 The teachers think highly of me at my school	31 The Explore University programme has encouraged me to consider uni	33 I want to know more about uni before I make my mind up	
-2	5 I have found the Explore University taster sessions helpful in deciding about uni	7 University is good for lots of people, but not in my case	19 Being at uni would be just like being at school	29 I always knew what job I wanted	32 I would never have thought about uni if it was not for Explore University			
-3	2 I would like to go to uni, but stay close to my home	20 I like school a lot						

Table 1

The sample size

In 2016-2017, 46 secondary school students (aged 14-16 years) sorted the statements onto the online distribution grid. Q is well known for its facility to render large amounts of quantitative and qualitative material from very small numbers of participants (Watts and Stenner, 2005). In fact, it is possible to conduct a Q study on one participant's perspectives on any given subject. Having fewer participants in a Q study means that each individual Q-sort forms a greater proportion of each factor produced and will provide more detail on each individual participant's perspective (Watts and Stenner, 2012).

Ethical consideration that influenced the research design

The research team was aware that attending university may have been a sensitive subject to verbally discuss with the participants, depending on the participant's perspectives and those of their families. It was important that participants had the ability to disclose their perspectives honestly and retain anonymity even from the researchers and co-ordinators of the Explore University programme. As such, a web-based Q-sort programme was created and commissioned by a colleague from the University of Wolverhampton for this study that enabled participants to sort the cards online. The programme was specifically designed for young people to use with minimal assistance. All participants were informed that their participation was voluntary, and that they could withdraw from the research at any time.

The use of factor analysis

Q data is analysed collectively to produce consensus viewpoints, which have statistical significance (Brown, 1993). These consensus viewpoints are known as 'factors' in the analysis. Q data is usually analysed using specific factor-analysis software and in this study PQ method was used to input the data and produce the factors. It is possible to analyse the data manually, however this can be a lengthy and error-prone process (Rhoades and Brown, 2019). In this study, the researchers used centroid analysis to extract the factors in PQ method for varimax rotation. This meant that the researchers used the Q software to run the factor analysis process, rather than choosing to manually extract and/or rotate the factors. The study retained factors that had an eigenvalue (strength of that factor in relation to others) of 1.00 or higher. The data generated four factors that were kept for interpretive analysis and are detailed in this paper.

Research implications

Access to participants was a particular difficulty for this study. This was because the Q-sort required online access and this meant that there was a limit to how many participants were able to complete the card sort at the same time. There were also Explore University activities that were not in suitable environments to attempt to carry out this form of data collection. However, using distribution boards instead of the web-

based distribution grid would have still posed logistical difficulties including space to complete the card sort. The study would have also benefited from the use of traditional data collection methods, such as interviews, alongside the use of Q. However, access at events in various locations posed a significant difficulty to practically carrying this out. It was decided by the research team that the use of a web-based Q-sort meant that the co-ordinators of Explore University could carry out the data collection at these various locations and events.

This paper focuses on the study's findings that were not expected during the evaluation of the Explore University programme. We decided to focus on these findings as they contribute to existing knowledge. These findings were associated with young people's self-perception as learners and the influence these perceptions had on their strength of commitment to attend university.

Findings

The study retained four factors that had an eigenvalue of 1.00 or higher. Each factor was given a descriptor that attempted to capture the essence of the collective standpoint. These descriptors are as follows:

Factor one: 'I have a positive perspective of myself as a secondary learner. I believe higher education is for me'.

Factor two: 'I think of myself positively as a secondary learner, but I do not see myself becoming a HE learner'.

Factor three: 'I do not positively reflect on myself as a learner. I am a bit nervous about attending university, but I would like to give it a go'.

Factor four: 'I believe that I am a good secondary learner and I would like to attend university. I am however worried if I will cope at university'.

In the interpretation of these factors each Q-sort statement was given a number and can appear in any factor. Where it appears in a particular factor, its strength of agreement or disagreement is also numbered within brackets, for example: Factor one, (6: +3) would refer to the position of statement 6 'I can't wait to start uni' in the strongest positive position in Factor one. Alternatively, Factor two (6: -3) would indicate

that the same statement was placed in the strongest negative position in that particular factor.

The factor analysis process generated 4 strong factors (with greater than 1.00 eigenvalue) that account for 41 of the 46 participants. Table 2 details the factor Q-sort values, showing the differences in how each of the factors placed or valued each of the statements.

Factor Q-Sort Values for Each Statement		Factor Arrays			
		No.	1	2	3
Statement					
I am much more positive about uni than I was before the ExploreUni programme	1	-1	0	3	0
I would like to go to uni, but stay close to my home	2	-2	-3	-2	-1
I would definitely still keep in touch with all my friends if I went to uni	3	1	0	2	0

I would feel better about myself if I went to uni	4	0	0	-1	0
I have found the Explore University taster sessions helpful	5	-1	0	1	1
I can't wait to start uni	6	1	-2	-1	0
University is good for lots of people, but not in my case	7	-3	2	-2	-2
The amount of support available in uni sounds great	8	0	2	1	0
I would have gone to uni regardless of the ExploreUni programme	9	1	-2	0	-2
My family really wants me to go to uni	10	1	-2	1	0
My family would be really proud if I went to uni	11	1	-1	1	1
I could easily cope with going to uni	12	0	1	-1	-2
Uni seems a more friendly place than I used to think	13	0	0	0	1
I was surprised that people think I could go to uni	14	-2	-2	-1	-2
Uni seems a good idea for me	15	2	-1	1	1
Most of my friends will go to uni	16	0	0	0	-2
I think I will fit right into uni	17	1	1	0	-1
If I went to uni I would not be worried about keeping up with the work	18	-2	-1	-2	0
Being at uni would be just like being at school	19	-2	-1	-3	-1
I like school a lot	20	-1	-1	-3	1
Uni is nothing like school	21	0	-1	2	-3
I'd make lots of new friends at uni	22	0	3	2	0
I'd get a good job by going through uni	23	3	1	2	3
I would be just as clever as the other students at uni	24	-1	0	-2	-1
I am pretty good at my school work	25	2	2	-1	2
The teachers think highly of me at my school	26	2	1	0	2
I would not find uni too big for me	27	2	1	-1	-1
There are more choices to study what I want at uni than at school	28	2	3	3	3
I always knew what job I wanted	29	0	1	-2	-3
I have changed my mind about my future	30	-1	-3	0	-1
The Explore University programme has encouraged me to consider uni	31	-2	2	0	2
I would never have thought about uni if it was not for ExploreUni	32	-3	0	-1	1
I want to know more about uni before I make my mind up	33	-1	2	0	2
I have learned lots about uni that I never imagined	34	-1	1	1	2
Uni seems like the best option for me now	35	3	-2	1	-1
Even though I am a bit nervous, I am looking forward to going to uni	36	1	-1	2	1

Table 2

Factor one entitled 'I have a positive perspective of myself as a secondary learner. I believe higher education is for me'

The amount of variance accounted for was 22 percent and its eigenvalue was 10.1905, which is ten times the value needed to be a significant factor. In total 15 students held these communalities in their positions.

Analysis of factor one:

Students in this factor held a positive perspective of themselves as secondary learners. They believed that teachers thought highly of them at school (26:+2) and they thought that they were pretty good at school work (25:+2). This confidence was also apparent in their aspirations to attend higher education. These students were not surprised that people thought they could go to university and they did not think university is too big for them (14-2; 27; +2). They also did not think university will make them feel better about themselves (4; 0) and they wanted to experience university away from home (2; -2).

These students clearly differentiated their school experiences from their ideas about university (19:-2). They believed that university would provide them with more choices to study subjects they were interested in (28:+2). They strongly agreed that university was the right option for them. They did this by placing three statements related to their desire to attend university in the most extreme columns of the distribution grid. This included university being the best option and a good idea for them (35:+3; 15:+2), and they disagreed with university being good for lots of people, but themselves (7:-3). These students believed that university would provide good job prospects for them (23:+3).

However, these students did state that they would be worried about keeping up with university work (18; -2). They did not believe that they would fit right into university (17; +1) and did not believe that they would be as clever as other students at university (24; -1).

Factor two entitled 'I think of myself positively as a secondary learner, but I do not see myself becoming a HE learner'

The amount of variance accounted for was 10 percent and its eigenvalue is 4.699, which is over four times the value needed to be a significant factor. In total 7 students held these communalities in their positions.

Analysis of factor two:

In comparison to factor one, these students held positive perspectives of themselves as secondary learners. They believed that they are pretty good at school work (25:+2) and they were not surprised that people thought that they could go to university (14:-2). However, they were less convinced than factor one that their teachers thought highly of them (26; +1).

In contrast to factor one these students did not believe that university at present is the best option for them (35:-2) and they had not changed their mind about their future (30:-3). Understandably, they disagreed with statements that discussed being excited and having a desire to attend university (2:-3; 6:-2). They believed that university is good for lots of people, but not in their case (7:+2). These students identified some benefits of attending university. They stated that there are more choices at university to study what they are interested in (28:+3), they would make new friends (22:+3) and the amount of support available sounds great (8:+2). Importantly, they need to know more about university before they make up their mind (33:+2).

Understandably these students placed a lot of statements about themselves as HE learners in the more neutral columns of the distribution grid. These included believing that they could easily cope going to university (12; +1), they would be just as clever as the other students at university (24; 0), they would fit right into university (17; +1), they would not find university too big for them (27; +1) and they would not be worried about keeping up with the work (18; -1).

Factor three entitled 'I do not positively reflect on myself as a learner. I am a bit nervous about attending university, but I would like to give it a go'

The amount of variance accounted for was 6 percent and its eigenvalue was 2.5311, which is over two times the value needed to be a significant factor. In total 12 students held these communalities in their positions.

Analysis of factor three:

In contrast to factors one and two, these students did not hold a strong perspective of themselves as secondary learners. They did not like school (20:-3) and they placed statements about themselves as secondary learners in the more neutral columns of the distribution grid. For instance, they did not agree that they are good at their

schoolwork (25; -1) and they did not believe teachers thought highly of them at school (26; 0).

Similarly to factor one, these students clearly differentiated the experiences of being at school and university (19:-3). They believed that university is nothing like school (21:+2). These students believed that university is good for lots of people, including themselves (7:-2). They had not always known what job they wanted to do (29:-2). However, even though they were a bit nervous, they were looking forward to going to university (36:+2).

These students highlighted some of the benefits of attending university that focused on attendance and future job prospects. They wanted to move away from home to attend university (2:-2), there were more choices to study what they're interested in (28:+3) and they believed that they will get a good job by attending university (23:+2). Friendships were important to these students. They wanted to keep in touch with all of their friends (3:+2) and they believed that they will make lots of new friends at university (22:+2). These students did seem to negatively differentiate themselves to their future HE peers. They did not believe they would be just as clever as the other students at university (24; -2). Interestingly, most of the statements that would identify a positive HE identity were placed in the neutral columns of the distribution grid. These included I could easily cope with going to uni (12; -1), I think I will fit right into uni (17; 0), I can't wait to attend uni (6; -1) and I would not find uni too big for me (27; -1)

Factor four entitled 'I believe that I am a good secondary learner and I would like to attend university. I am however worried if I will cope at university'.

The amount of variance accounted for was 5 percent and its eigenvalue was 2.4812, which is over two times the value needed to be a significant factor. In total 7 students held these communalities in their positions.

Analysis of factor four:

In comparison to factors one and two, these students also held good perspectives of themselves as secondary learners at school. They believed that they were pretty good at school work (25:+2) and believed that teachers thought highly of them (26:+2). They were also not surprised that people thought that they would attend university (14:-2).

However, in contrast to the other factors this group believed that university and schools are alike (21; -3). These students have not always known what job they would like do (29:-3) but they disagreed that university is good for lots of people, but is not right for them (7:-2). For these students, the benefits of attending university included having more choices to study what they want (28:+3) and getting a good job (23:+3). However, in comparison to factor two these students wanted to know more about university before they make up their minds (33:+2).

Friendships were also important to this group. They state that many of their friends would not be attending university (16:-2). This differentiation included a perceived lack of existing friendship support at university, which may be why these students thought they could not easily cope with going to university (12:-2). In comparison to factor three, these students placed positive HE statements in the more neutral columns of the distribution grid. These included I can't wait to start uni (6; 0), I will fit right into uni (17; -1), if I went to uni I would not be worried about keeping up with my work (18; 0), I would be just as clever as the other students at uni (24; -1) and I would not find uni too big for me (27; -1).

Overall analysis

Students across these differing factors understandably held a variety of perspectives on the extent university was right for them. Interestingly, none of these students were heavily influenced by the perspectives of their family or friends. Three statements relating to family and friends' perspectives were mostly placed in the neutral (middle) columns of the distribution grid. The table below represents these identified statements and the Q-sort value placed on these statements for each factor.

Factor statement	F1	F2	F3	F4
10. My family really wants me to go to uni	1	-2	1	0
11. My family would be really proud if I went to uni	1	-1	1	1
16. Most of my friends will go to uni	0	0	0	-2

Table 3

Instead students were influenced more by their perspectives of themselves as learners. Factor one students had the strongest positive perspectives of themselves as learners. They were the only group to be able to effectively transfer their positive perspectives into their future university selves in a confident manner. Factor two students held some positive perspectives of themselves as learners, but they were mostly focused on themselves as secondary students. They did not consider themselves as future university students, because they hadn't decided whether this was the right option for them.

In contrast, factor three students were the only group to not state a good perspective of themselves as students in school. They instead could see themselves as university learners, considering themselves in relation to university peers and were nervous about attending university. Finally, factor four students held similar positive perspectives of themselves as school learners to factor two. However, they had considered themselves as university learners but had not transferred their positive perspectives from school to university. Instead, factor four students indicated strongly there were differences between school and university and were concerned that they may not cope in a university environment.

Discussion and concluding statements

A substantial proportion of the young people in our sample had already made up their minds that they will apply to university without too much agonising, and fully expect that they will be successful there, both socially and academically (Factor One, Factor Two). Some would benefit from more information on the different types of courses available at different universities, rather than whether to apply at all. In marketing terms, they could be described as secure customers, and only need signposting to the appropriate information at the right time points.

A smaller proportion of the young people that wanted to go to university intended to apply and were aware that others had belief in them but failed to share that belief in themselves (Factor Three). For this group, schools, colleges and universities would be advised to offer targeted support and confidence building, perhaps by demonstrating the learners' strengths against the norms of university achievement. This could be facilitated by mentors and role models; here the work of Aimhigher and

Explore University, for example, would seem particularly appropriate (Aimhigher West Midlands, 2017; Passy and Morris, 2010).

Another group (Factor Four) had a different reservation: their social ties with peers who were not planning on applying to university. For these young people, there are some very intricate and complex identity issues to resolve before they would be more comfortable in applying to university. Their view on what is important to them may be the antithesis of anyone promoting progression to higher education, and may perhaps appear to be parochial. However, the importance of current friendships and community links should not be dismissed lightly, compared to the experience of university education, particularly if those students may also be considering developing vocational careers within their communities as an alternative to attending university.

This is a larger philosophical question than simply a practical one; it has moral and ethical dimensions. Prospective students once regarded as “non-traditional” have weaker networks and potentially lower financial or cultural capital, but this deficit may well be offset by a closer attachment to existing community, or stronger friendship and kinship networks. A weakening or removal of these links that may result from going to university might only serve to exacerbate feelings of alienation and isolation (see Reay, David, & Ball, 2005).

Given the strong financial imperative that drives HEI recruitment and marketing, and the fact that places must be filled from increasingly hard-to-reach reserves of potential applicants, external pressures on young people to choose university are unlikely to abate in the near future. However, education and training needs to be diverse in its provision in ways that support young people not wishing to go to university. Modern apprenticeships may provide the answer in time, but have also been criticised, with concerns over low wages and short, inconsistent training programmes being identified as issues with some apprenticeships (Hogarth & Hasluck, 2003). Further investigation into this aspect of widening participation needs to be undertaken.

Some young people (Factor One) held very positive impressions of themselves as learners but were worried about fitting in at University and keeping up with other students. And yet there were others (Factor Two) who clearly felt confident that they would cope and they consider themselves to be just as clever as other students, but do not automatically believe University is their best option and need to know more. In

comparison there are those (Factor Three) that appear nervous, feel they are not good at school and are not as clever, yet they are looking forward to going to University and making friends. Paradoxically some students (Factor Four) also want to go to University but want to know more about University but are unsure of making new friends and express a rather neutral response to positive statements relating to higher education. Whilst this research did not focus on socio-economic factors, there are echoes of Marsh and Parker's (1984) findings here on self-concept, in that we see very positive learners that are worried about fitting in and keeping up at University, whilst others feel less confident and may not even be considering Higher Education, yet they feel more confident of making friends and that they could easily cope. Our findings also reflect Brooks' emphasis (2004) on the importance of peer relationships and friendship groups.

The findings represent a complex collection of young people's experiences and thoughts that future HE recruitment strategies and schools providing IAG on progression may wish to consider. Our participants may not encapsulate the full range of perspectives held in the entire population, but they do offer a wide range of nuanced views that highlight the very diverse ways in which young people see themselves as they arrive at a crossroads in their education. However, it is reasonable to conclude that homogenous and clearly defined categories of student types do not exist and there are overlaps but also contradictions in the findings that serve as a caveat to attempts to provide a generic one-size-fits-all solution. This resonates with Diamond et al (2014), who call for more engagement with prospective students and a greater understanding of how their views are shaped. The evidence also correlates with Bowes et al (2015) who suggest young people need to be supported with effective IAG in order to support their choices. It has already been noted that teachers play a critical role in influencing expectations and self-perceptions as learners and achievers, but additionally a complex web of peer and familial decision-making is at play, mediated through gender, ethnicity and class, for example (Brooks, 2002). Whilst these different influences have been highlighted to a lesser or greater degree by different studies, peer relationships and making friends are factors in this study. Given that some studies point to students taking responsibility in making decisions in light of a lack of familial cultural capital, building self-efficacy (Bandura, 1982) in the decision-making process may also have a role to play for some students lacking confidence. Correspondingly

over-confidence may need to be tempered with accurate IAG for students to make realistic plans.

Providers of IAG may wish to consider how to differentiate between some of the groups this study has identified. A short questionnaire, for example may allow for easy identification of those students who know they want to go to university (Factor One) from those who are interested but much less confident in their abilities (Factor Three), which would allow for appropriate signposting for the first group and confidence building activities for the second group.

References

Aimhigher West Midlands (2017) UniFest External Review. *Higher Education Quarterly*, Vol. 65(3), pp. 230–250.

Ball, S. J. Reay, D. and David, M. (2002) 'Ethnic Choosing': minority ethnic students, social class and higher education choice. *Race Ethnicity and Education*, Vol. 5(4), pp. 333-357.

Bandura, A. (1982) Self-efficacy mechanism in human agency. *American Psychologist*, Vol. 37(2), pp. 122.

Bowes, L. et al., (2015) *Understanding progression into higher education for disadvantaged and under-represented groups*. A report by CFE Research for the Department for Business, Innovation and Skills (BIS).

Brattesani, K. A. Weinstein, R. S. Marshall, H. H. (1984) Student perceptions of differential teacher treatment as moderators of teacher expectation effects. *Journal of Educational Psychology*, Vol. 76(2), pp. 236.

Brennan, L. (2001) Choosing a University Course: first year students' expertise and information search activity. *Higher Education Research & Development*, Vol. 20(2), pp. 217-224.

Brooks, R. (2002) 'Edinburgh, Exeter, East London – or employment?' A review of research on young people's higher education choices. *Educational Research*, Vol. 44(2), pp. 217–227.

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*, Vol. 30(4), pp. 495-514.

Brophy, J. E. Good, T. L. (1970) Teachers' communication of differential expectations for children's classroom performance: Some behavioural data. *Journal of Educational Psychology*, Vol. 61(5), pp. 365.

Brown, S. (1993) A Primer on Q Methodology. *Operant Subjectivity*. Vol. 16(3/4), pp. 91-138.

Brown, S. (1997) *The history and principles of Q methodology in psychology and the social sciences*. Kent, OH: Kent State University.

Callender, C. Jackson, J. (2008). Does the fear of debt constrain choice of university and subject of study? *Studies in Higher Education*, Vol. 33(4), pp.405-429.

Cohen, L., Manion, L., Morrison, K. and Bell, R. (2011) *Research Methods in Education*. (7th ed.). London: Routledge.

Diamond, A. Roberts, J. Vorley, T. Birkin, G. Evans, J. Sheen, J. Nathwani, J. (2014). *UK Review of the provision of information about higher education: Advisory Study and Literature Review*. CFE Research.

Demack, S. Stevens, A. McGaig, C. (2012) *'Dreams' & 'Realities' in University Access: Mapping social differences in Higher Education aspirations and participation in England. Final Report*. Sheffield Hallam University. Centre for Education and Inclusion Research.

Entwisle, D. R. (2018) *Children, schools, and inequality*. Routledge.

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

Haynes, G. McCrone, T. Wade, P. (2013) Young people's decision-making: the importance of high quality school-based careers education, information, advice and guidance. *Research Papers in Education*, Vol. 28(4), pp.459-482.

- Hogarth, T. Hasluck, C. (2003) *Net costs of modern apprenticeship training to employers*. Nottingham: Department for Education and Skills.
- Kettley, N.C. Whithead, J.M. (2012) Remapping the “landscape of choice”: patterns of social class convergence in the psycho-social factors shaping the higher education choice process. *Educational Review*, Vol. 64, pp.493-510.
- Khattab, N. (2015) Students’ aspirations, expectations and school achievement: what really matters? *British Educational Research Journal*, Vol. 41(5), pp. 731-748.
- Kniveton, B.H. (2004) The Influences and Motivations on Which Students Base Their Choice of Career. *Research in Education*, Vol. 72(1) pp.47-57.
- Maringe, F. (2006) University and course choice Implications for positioning, recruitment and Marketing. *International Journal of Educational Management*, Vol. 20(6), pp.466-479.
- Marsh, H. W. Parker, J. W. (1984) Determinants of student self-concept: Is it better to be a relatively large fish in a small pond even if you don't learn to swim as well? *Journal of Personality and Social Psychology*, Vol. 47(1), pp.213-231.
- Moogan, Y.J. Baron, S. (2003) An Analysis of Student Characteristics within the Student Decision Making Process. *Journal of Further and Higher Education*, Vol. 27(3), pp. 271-287.
- Nicoletti, C. Berthoud, R. (2010) *The Role of Information, Advice and Guidance in Young People’s Education and Employment Choices*. Institute for Social and Economic Research. University of Essex. Report for the Department for Education. Research Report DFE-RR019.
- Oakleigh Consulting and Staffordshire University. (2010) *Understanding the information needs of users of public information about higher education. Report to HEFCE*. Manchester.
- Oliveira, T. Zanchi, L. (2004) *Participation in higher education in Britain: The effect of ability and parental income*. Available at:
<https://www.le.ac.uk/economics/to20/heeea.pdf> [Accessed 31 Oct. 2018].

Oliver, C. Kettley, N. (2010) Gatekeepers or facilitators: the influence of teacher habitus on students' applications to elite universities. *British Journal of Sociology of Education*, Vol. 31(6), pp. 737-757.

Passy, R. Morris, M. (2010) Evaluation of Aimhigher: learner attainment and progression. Final Report. National Foundation for Educational Research and HEFCE.

QS Enrolment Solutions (2018) UK International Student Survey. Harnessing opportunities in global higher education.

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

Reay, D. David, M.E. Ball, S. (2005) Degrees of Choice, social class, race and gender in higher education. Trentham Books: Stoke-on-Trent.

Rogers, R.A. (2009) 'No one helped out. It was like, "Get on with it. You're an adult now. It's up to you". You don't ... it's not like you reach 17 and suddenly you don't need any help anymore': a study into post-16 pastoral support for 'Aimhigher Students'. *Pastoral Care in Education*, Vol. 27(2), pp. 109-118.

Schenke, K. Ruzek, E. Lam, A. C., Karabenick, S. A. Eccles, J. S. (2018) To the means and beyond: Understanding variation in students' perceptions of teacher emotional support. *Learning and Instruction*, Vol. 55, pp. 13-21.

Schunk, D. H., Pintrich, P. R., & Meece, J. L. (2008) *Motivation in education: Theory, research, and applications*.

Smyth, E. and Banks, J. (2012) 'There was never really any question of anything else': young people's agency, institutional habitus and the transition to higher education. *British Journal of Sociology of Education*, Vol. 32(2), pp. 263-28.

Soares, A.T. Soares, L.M. (1971) Comparative differences in the self-perceptions of disadvantaged and advantaged students. *Journal of School Psychology*, Vol. 9(4), pp. 424-429.

Thomas, L. (2011) Do Pre-entry Interventions such as 'Aimhigher' Impact on Student Retention and Success? A Review of the Literature. *Higher Education Quarterly*, Vol. 65(3), pp. 230-250.

Thompson, D.W. (2019) Aspirations and Ambiguities – the need for focussed IAG for school pupils considering progression to higher education (HE). *Journal of Further and Higher Education*. Available at: <https://doi.org/10.1080/0309877X.2019.1616081> [Accessed 13 Jun. 2019].

Thornton, A. Pickering, E. Peters, M. Leathwood, C. Hollingworth, S. Mansaray, A. (2014) *School and college-level strategies to raise aspirations of high-achieving disadvantaged pupils to pursue higher education investigation*. Research Report. Department for Education. DFE-RR296.

Timmermans, A. C., de Boer, H. van der Werf, M. P. (2016) An investigation of the relationship between teachers' expectations and teachers' perceptions of student attributes. *Social psychology of education*, Vol.19(2), pp. 217-240.

Trowbridge, N. (1972) Self concept and socio-economic status in elementary school children. *American Educational Research Journal*, Vol. 9(4), pp. 525-537.

Urhahne, D. (2015) Teacher behavior as a mediator of the relationship between teacher judgment and students' motivation and emotion. *Teaching and Teacher Education*, Vol. 45, pp. 73-82.

Watts, S. Stenner, P. (2005) Doing Q methodology: theory, method and interpretation. *Qualitative Research in Psychology*. Vol.2(1), pp. 67-91.