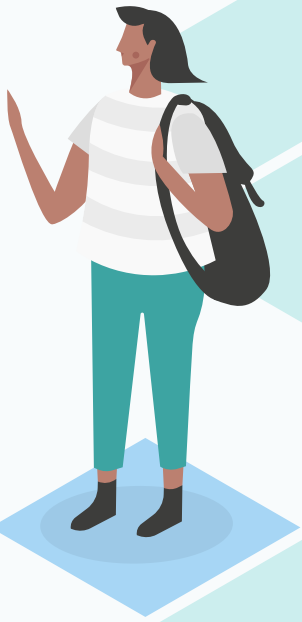
Effective Careers Interventions for Disadvantaged Young People



A Report by the Behavioural Insights Team (November 2021)

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1. Executive Summary

1.1. Background

School-mediated support is particularly important for those from lower socio-economic backgrounds as it helps expose students to a range of people, jobs and career options[1] and challenges class-based stereotypes[2]. With the support of JPMorgan Chase, The Careers & Enterprise Company (CEC) commissioned the Behavioural Insights Team (BIT) to develop evidence of how career support, that sits within the Gatsby Benchmarks, can be further targeted to improve post-16 transitions to education or employment for young people from socio-economically disadvantaged backgrounds. While the research has been supported by JPMorgan Chase the content and opinions in this paper do not necessarily reflect the views of the JPMorgan Chase Foundation, JPMorgan Chase & Co., or any of its affiliates.

This report collates evidence from the academic literature (46 papers) along with insights from four regional consultation events to answer the following research questions:

1. What indicators can be used to identify socio-economically disadvantaged young people aged 14-17 to target with additional career support?
2. What are the range of barriers (e.g. attitudinal, behavioural, practical) to using career support to achieve positive career destinations that are exacerbated by a young person's economic disadvantage?
3. What are the needs of this cohort at points of transition in their educational career?
4. What are the principles of career intervention activities (or ways of delivering activities) that work to address the needs and obstacles of disadvantaged young people?

1.2. Summary of findings

Insights from the literature and consultation events suggest that Free School Meal (FSM) status is the most widely used and accessible individual-level indicator for identifying socio-economically disadvantaged young people who could benefit from targeted career support. However, it should be noted that FSM eligibility may not, alone, be sufficient to identify those most at risk of poor outcomes and in need of additional support. Career support interventions targeted at this low socio-economic status (SES) cohort should seek to address the following barriers to using career support to achieve positive destinations (these were identified using the COM-B Model[3] of behaviour change):

1. Capability, i.e. the skills or capacity required to perform a behaviour.

    - Basic needs taking precedence over career support; this group are more likely to face competing pressures due to having more complex basic needs (e.g. poverty, trauma, crime and poor wellbeing) which limits time and attention to engage with career support.

[1] Le Gallais, T., & Hatcher, R. (2014). How school work experience policies can widen student horizons or reproduce social inequality. Understanding employer engagement in education, 190-201.;
Mann, A., Kashefpakdel, E., & Percy, C. (2018). Socialised social capital? The capacity of schools to use careers provision to compensate for social capital deficiencies among teenagers. Essays on employer engagement in education, 68-83.
[2] Mann, A., Denis, V., Schleicher, A., Ekhtiari, H., Forsyth, T., Liu, E., & Chambers, N. (2020). Dream Jobs? Teenagers' Career Aspirations and the Future of Work.
[3] Michie, S., van Stralen, M.M. & West, R. The behaviour change wheel: A new method for characterising and designing behaviour change interventions. Implementation Sci 6, 42 (2011).

- Complexity of post-16 choices; this group are more likely to select technical pathways which have a vast and confusing option set, and experience 'career confusion', whereby career goals are misaligned with attainment or experience.

2. Opportunity, i.e. the physical and social environment that enables the behaviour.

- Social networks (families, peer groups, wider networks); this group exhibits a preference for informal support despite typically having more limited social capital.

- Limits of school-mediated career support (in terms of timing, frequency and targeting); by the time young people receive career support they may have already ruled out many options as not suitable for them.

3. Motivation, i.e. the reflective and automatic processes that drive the behaviour, including both conscious and unconscious decision making.

- Low career self-efficacy; this group are less likely to aspire to higher status occupations, regardless of academic attainment and capability, and therefore less likely to be motivated to engage with career support relating to such occupations.

This report reviews evidence of career support interventions that help to address these barriers and improve outcomes for young people from disadvantaged backgrounds. The interventions fall into five categories; building aspirations and overcoming stereotypes; parental engagement; peer support; employer engagement; personalised transition support. The following principles should be applied to school-mediated career support to improve outcomes for the target audience.

- **Principle 1:** Target barriers that are exacerbated by economic disadvantage.
- **Principle 2:** Occur on a repeat basis, rather than one-off provision.
- **Principle 3:** Enable young people's influencers (e.g. parents or carers) to support them with careers-related activities.
- **Principle 4:** Create social capital for young people with more limited networks e.g. through employer engagement and mentors.
- **Principle 5:** Use data to track engagement and take additional measures to support at-risk students.
- **Principle 6:** Apply robust evaluation, ideally using experimental methods with behavioural outcomes.

Glossary

- **Aspiration:** The long-term career related goals an individual has for themselves. This could include a specific job, an area of employment or job level (e.g. manager).
- **Career support:** This is used universally within this report to refer to a wide range of activities that help a young person to think about their future and build the skills needed to make positive post-16 decisions. Career support activities captured by the Gatsby Benchmarks comprise information provision, engagement with employers and education providers, and personal guidance.
- **Disadvantage:** Within this report, this specifically refers to lower socioeconomic status.

- **Self-efficacy:** An individual's belief in their own ability to succeed or accomplish a specific task. Career-related self-efficacy refers to an individual's confidence in their ability to succeed in a particular job role or career pathway.
- **Social capital:** The social resources available to an individual, i.e. the networks, experiences and relationships that give them an economic advantage. Greater social capital can be beneficial for young people by increased access to quality opportunities.
- **Transition:** The progression from one educational stage to another (including moving between school year groups, to higher or further education, or to employment). In this report the focus is on the post-16 transition point after Key Stage 4.
- **Underrepresented groups:** In this report this refers to demographic groups that are in the minority within certain subject areas or career paths (for example, women in science).

2. Introduction

2.1. Background

A gap in employment outcomes exists between young people from lower socio-economic backgrounds and their more advantaged peers. Analysis of longitudinal education outcomes (LEO) data, reveals that 26% of young people who received free school meals (FSM) in year 11 are not in education or employment (NEET) aged 18-24, compared to 13% of non-FSM students.[4] Although differences in GCSE attainment are a contributing factor, young people from disadvantaged backgrounds remain twice as likely to be categorised as NEET even when qualifications are controlled for.[5] High achieving students from disadvantaged backgrounds are also less likely to apply to higher education[6], attend a high status university,[7] or access high status professional jobs[8] than similarly qualified peers from more affluent backgrounds. However, there is evidence to suggest that career support in schools can help to address this inequality.

An international review by the OECD, looking at how young people form career aspirations, suggests that effective career support "encourages students to reflect on who they are and who they want to become, and to think critically about the relationships between their educational choices and future economic life."[9] Young people who receive high-quality career support are more likely to feel confident and positive about their post-16 choices and make successful transitions to employment or education.[10] In some cases, well-timed career support can also have a positive impact on GCSE attainment.[11] Effective career support is particularly important for students at points of transition (year 11 and 13) as this tends to be when they make decisions about education or career options.[12]

Whilst those from more advantaged backgrounds can often access career support through social connections outside of school, school-mediated support is particularly important for those from lower socio-economic backgrounds. It can help to expose students to a range of people, jobs and career options[13] and challenge class-based stereotypes.[14] The Gatsby Benchmarks were introduced in 2014 to improve the quality and availability of careers education in schools and colleges in England and have been adopted by 85% of mainstream secondary schools and colleges.[15] The Careers & Enterprise Company are now looking at how support that sits within these benchmarks can be further targeted to improve post-16 transitions to education or employment for young people from socio-economically disadvantaged backgrounds.

[4] Impetus, National Institute of Economic and Social Research (2019). Research briefing 1: establishing the employment gap.
[5] ibid
[6] Anders, J. (2012). The link between household income, university applications and university attendance. Fiscal Studies, 33(2), 185-210.
[7] Campbell, S., MacMillan, L. & Wyness, G. (2019). Mismatch in higher education: prevalence, drivers and outcomes.
[8] The Social Mobility Commission (2018). State of the Nation 2018-19: Social Mobility in Great Britain.
[9] Mann, A., Denis, V., Schleicher, A., Ekhtiari, H., Forsyth, T., Liu, E., & Chambers, N. (2020). Dream Jobs? Teenagers' Career Aspirations and the Future of Work.
[10] Hughes, D., Mann, A., Barnes, S., Baldauf, B., & McKeown, R. (2016). Careers education: International literature review. Education Endowment Fund.; Morris, M., et al., 1999, The Impact of Enhanced Careers Education and Guidance on Transition at 16, RD 21, Sheffield: DfEE
[11] Education and Employers Research. (2019). Motivated to Achieve: How encounters with the world of work can change attitudes and improve academic attainment.
[12] Hughes, D. (2017). User insight research into post-16 choices: a report by CFE Research with Deirdre Hughes. December 2017.
[13] Le Gallais, T., & Hatcher, R. (2014). How school work experience policies can widen student horizons or reproduce social inequality. Understanding employer engagement in education, 190-201.; Mann, A., Kashefpakdel, E., & Percy, C. (2018). Socialised social capital? The capacity of schools to use careers provision to compensate for social capital deficiencies among teenagers. Essays on employer engagement in education, 68-83.
[14] Mann, A., Denis, V., Schleicher, A., Ekhtiari, H., Forsyth, T., Liu, E., & Chambers, N. (2020). Dream Jobs? Teenagers' Career Aspirations and the Future of Work.
[15] Holman, J. (2014). Good career guidance. London: Gatsby Trust.; CEC. (2020). Careers education in England's schools and colleges 2020

3. Methodology

With the support of JPMorgan Chase, The Careers & Enterprise Company commissioned the Behavioural Insights Team (BIT) to collate evidence from the academic and research literature, with insights from stakeholder consultation events, to explore the following research questions:

1. What indicators can be used to identify socio-economically disadvantaged young people aged 14-17 to target with additional career support?
2. What are the range of barriers (e.g. attitudinal, behavioural, practical) to using career support to achieve positive career destinations that are exacerbated by a young person's economic disadvantage?
3. What are the needs of this cohort at points of transition in their educational career?
4. What are the principles of career intervention activities (or ways of delivering activities) that work to address the needs and obstacles of disadvantaged young people?

3.1. Literature review

This report includes insights and findings from 46 academic research papers, including seven systematic review papers. Google Scholar was used to identify peer reviewed publications that would inform the research questions. Only papers that relate to career support with young people (aged up to 24) were included. Whilst research papers with disadvantaged or underrepresented groups were prioritised, papers that featured high quality evaluations (i.e. those that used robust quantitative methods) and focused on improving transitions to education or employment among young people more generally were also included, where they could potentially inform the design of future interventions. Studies from outside the UK were also included (13 international studies in total). See Table 1 and 2 for a breakdown of papers by age-group and evaluation method.

Table 1. Breakdown of papers by age group

Age group	% of papers
Up to 14 years old (before year 10)	17%
14 - 15 years old (years 10 - 11)	26%
16 - 24 years old	40%
Multiple ages included (pre 14-24 years)	17%

Table 2. Breakdown of papers by evaluation method

Evaluation method	% of papers
Only qualitative methods (e.g. interviews)	13%
Mixed qualitative and quantitative methods	56%
Quasi-experimental designs (QEDs)	16%
Randomised control trial	15%

In general, the literature search reveals that career education and support is an area that has not been widely empirically investigated. The paucity of existing evidence has required us to infer insights and identify 'best practice' principles from a relatively select number of papers.

Whilst this helps to understand the types of approaches that show promise, it also demonstrates a need to advance the evidence base and further understand what works.

3.2. Consultation events

In December 2020, BIT and The Careers & Enterprise Company held four regional consultation events covering the West Midlands, Dorset, London and Greater Manchester, to offer geographic spread. These events, conducted online, were designed to gather insights from those involved in delivering careers support. There were approximately 30 attendees in total, and they included representatives from Local Enterprise Partnerships, Career Hubs, and schools (including Careers Leaders and Headteachers). The events were structured to explore the following key themes:

a. Indicators currently used to identify disadvantaged young people for the targeting of careers support, and any issues associated with this.

b. Barriers that young people from disadvantaged backgrounds face in using career support to achieve positive education and employment destinations, particularly at transition points. These barriers were identified using the COM-B Model of behaviour change,[16] which breaks down the factors that influence a behaviour into three categories:

    - Capability, i.e. the skills or capacity required to perform a behaviour.
    - Opportunity, i.e. the physical and social environment that enables the behaviour.
    - Motivation, i.e. the reflective and automatic processes that drive the behaviour, including both conscious and unconscious decision making.

c. Intervention ideas to overcome these barriers and support disadvantaged young people to achieve positive education and employment destinations. We asked attendees to share interventions they had found, in their experience, to be effective, and to brainstorm innovative approaches to overcome the identified barriers.

[16] Michie, S., van Stralen, M.M. & West, R. The behaviour change wheel: A new method for characterising and designing behaviour change interventions. Implementation Sci 6, 42 (2011).

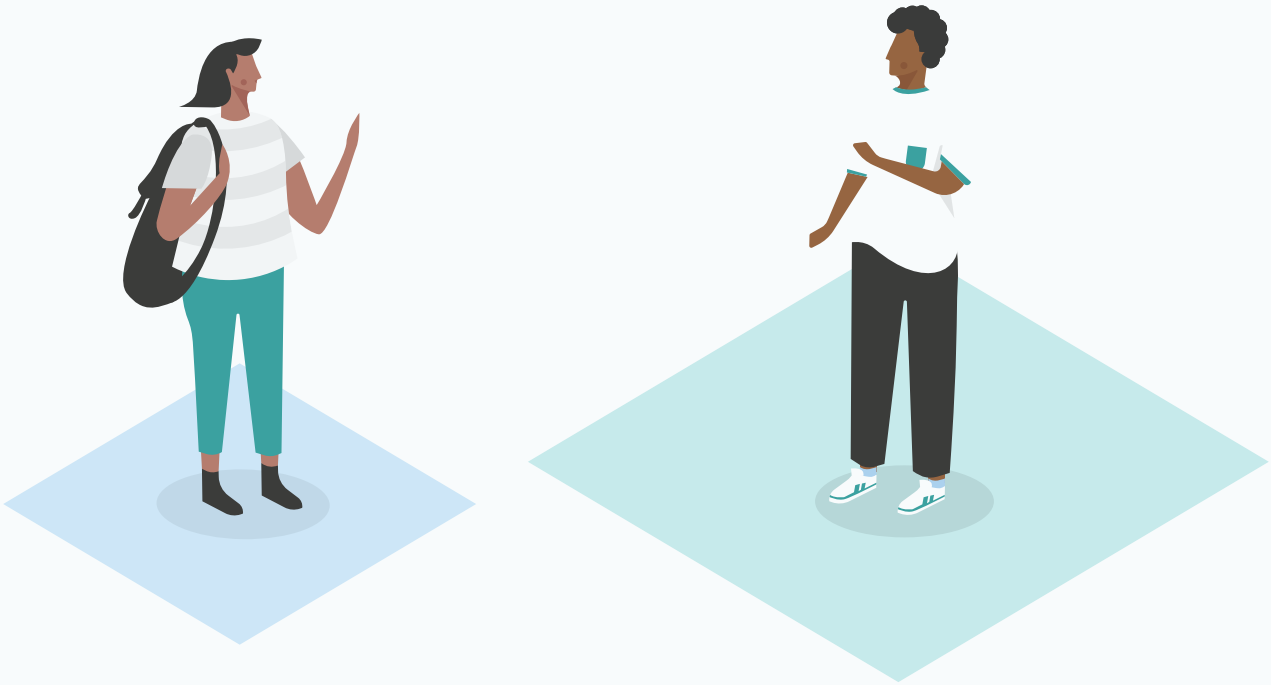
4. Indicators to identify socio-economically disadvantaged young people

Attendees at the consultation events were asked what measures of disadvantage are already used in the local delivery of careers education and support, how these are applied in practice and any associated challenges.

4.1. Indicators identified at the consultation events

Free School Meal (FSM) eligibility[17] and Pupil Premium (PP)[18] emerged as the most widely used indicators of socioeconomic disadvantage. Event attendees suggested they used these metrics because they were the most readily available individual level indicators.

However, many attendees stated that FSM/PP are not sufficient to understand an individual's level of need if used alone. Some eligible young people are engaged, motivated, high achieving and on track to achieve positive destinations, while some ineligible young people are disengaged, at risk of not transitioning to a positive destination, and more in need of additional support. Not all young people with significant needs that might hinder transition to positive destinations are eligible for free school meals. Additional indicators mentioned by attendees can be found in Table 3. All of these are formal RONI (Risk of NEET - Not in Employment, Education or Training - indicators). Again, none of these indicators were suggested to be sufficient for reliably identifying individual need for additional careers support if used in isolation.



[17] Free School Meal eligibility is based on household receipt of employment-related welfare benefits and applies to approximately 17% of students.
[18] Pupil Premium is additional funding that a school receives for a student if they have ever been eligible for FSM in the last six years, are a looked-after or post-looked-after child, or whose parents/carers have been in the military services at any point in the last six years.

Table 3. Additional indicators of disadvantage

Indicator	Description
Involvement of social services	Involvement of social services is an indication of challenges faced by the young person and affects risk of becoming NEET.
Exclusions and/or persistent absence	Young people who are excluded from school and/or have a chronically poor attendance are at higher risk of becoming NEET.
Low attainment	Low attainment restricts a young person's options and can make it harder to progress to a positive destination. Affects risk of becoming NEET.
EHCP/SEND	Some young people with Education and Health Care Plans, or young people eligible for SEN support, are at higher risk of becoming NEET and could benefit from targeted careers support.
Educated outside of mainstream school	Consultation event attendees noted that home-educated students are more likely to receive insufficient careers support and that special efforts should be made to reach them. Attendees also noted the greater need of young people in Alternative Provision. Being educated away from a school premises can affect the risk of becoming NEET.

Many attendees also indicated that they often rely on the professional judgement of practitioners (typically school staff members) who know the young person to assess disengagement and refer students for further support. Whilst this approach is less standardised and open to potential bias (as discussed in section 5.2.1.), it was thought that practitioners who know young people are best placed to identify those who are at risk of not making a successful transition in the absence of targeted provision.

Consultation event attendees also discussed the impact of demographic characteristics, such as ethnicity and gender, on the barriers a young person faces and the likelihood of them attaining certain positive destinations. Several attendees acknowledged that gender role socialisation plays a powerful role in career aspirations and choices. A number of attendees commented that ethnicity can affect the barriers that a young person faces. For example, some groups (e.g. white boys from low SES backgrounds) are more likely to face barriers relating to attainment in school, while some ethnic minority groups do well at school but then face barriers in achieving positive employment outcomes.

4.2. Challenges with targeting

Many consultation event attendees expressed concerns around visibly singling out disadvantaged students for additional careers provision. These concerns centred around the stigma associated with being considered to need special support, which can undermine a student's wellbeing and compromise their willingness to engage with that support.

Approaches currently taken that circumvent this issue include:

- Targeting at the school/geographical level (but this is not fine-tuned to individual need)
- Providing universal offers, but prioritising disadvantaged young people for early access (for example, schools scheduling interviews for disadvantaged pupils first)

4.3. Findings from the rapid evidence review

The literature mirrors that of the consultation events, whereby FSM is used widely as a key indicator of socioeconomic disadvantage within research and government policy. It is important to note there are some restrictions with using FSM as a proxy for disadvantage; most notably that it is a binary decision, so there may be young people just above the threshold who still face considerable disadvantage. The number of eligible students also shifts depending on current benefit rules and the economic environment. The latest official figures from the government show that the percentage of students on FSM increased from 15.4% in 2019 to 17.3% in 2020 (1,440,788 students), following the onset of the pandemic.[19] This is likely to further widen the variety of backgrounds of young people receiving FSM.

The literature mentions many of the additional indicators identified by the consultation event attendees, along with area level measures, such as IDACI score (income deprivation affecting children index, which measures in a local area the proportion of children under the age of 16 that live in low income households) and Index of Multiple Deprivation (a measure used to classify the relative deprivation of small geographical areas).

Key considerations

Insights from the literature and consultation events suggest that FSM status is the most readily available individual-level indicator for identifying socio-economically disadvantaged young people for targeted career support. This is based on household receipt of employment-related welfare benefits.

However, in isolation, this measure may not be sufficient to identify those most in need of preventative support to reduce a student's chance of becoming NEET. A number of other indicators can be used to try to predict need for more intensive interventions, but consultation event attendees were most confident in the judgement of practitioners (typically school teachers), who know the young person, to identify needs on an individual case basis.

Where provision is targeted at students with particular characteristics, it is important to mitigate the potential for stigma. One way to achieve this is to provide universal offers, but to design them specifically to speak to the barriers and needs of disadvantaged young people. These barriers are discussed in detail in the following section.

[19] Gov UK (2021). Schools, pupils and their characteristics. Academic year 2019/20.

5. Barriers to using career support to achieve positive career destinations

This section outlines barriers that young people from disadvantaged backgrounds face in relation to using career support to transition to positive employment and education outcomes. Whilst the primary focus is on barriers to using career support, some of the structural barriers that may inhibit this cohort in the labour market are discussed in section 5.4.

The barriers have been identified as a result of a review of current literature and insight from the consultation events and are presented in relation to the COM-B model; a theoretical model that aids understanding of the relevant barriers and facilitators of a given behaviour.[20] For a target behaviour to occur, the individual concerned must have the capability and opportunity to perform that behaviour and also be motivated to engage in that particular behaviour. In this case the behaviour of interest is the use of career support to achieve a positive post-16 transition.

5.1. Capability barriers

Within the COM-B model, capability refers to the skills or capacity an individual needs in order to perform a specific target behaviour.

5.1.1. Basic needs taking precedence over career support

Consultation event attendees felt that career goals can often be low down the list of priorities, especially for disadvantaged young people. Some spoke of young people not seeing the relevance of career support to real life. This was, in part, thought to be due to disadvantaged young people facing obstacles related to basic needs, such as poverty, trauma, crime and poor wellbeing. These competing pressures and concerns limit the time and attention available for engaging with career support.

A consequence of this can be that career support is deprioritised, which means students are less aware of what their options are, what support is available to them, and when decisions are needed. This is supported by the academic literature. Qualitative research suggests students from disadvantaged backgrounds lack awareness of the relevant timelines around when they need to make these decisions and start exploring the options available to them at a later stage.[21] Research has also found disadvantaged pupils to be consistently less likely to access formal career guidance and post-16 information outside of school, than their more advantaged peers.[22]

[20] Michie, S., van Stralen, M.M. & West, R. The behaviour change wheel: A new method for characterising and designing behaviour change interventions. Implementation Sci 6, 42 (2011).
[21] Greenbank, P., & Hepworth, S. (2008). Improving the career decision-making behaviour of working class students. Journal of European Industrial Training.
Hughes, D. (2017). User insight research into post-16 choices: a report by CFE Research with Deirdre Hughes. December 2017.
[22] Mann, A., Denis, V., & Schleicher, A. (2020). Dream jobs?: teenagers' career aspirations and the future of work.

5.1.2. Complexity of post-16 choices

Qualitative research suggests that career choices place a high burden on young people's cognitive capacity, as they encounter a high volume of information and struggle to reliably compare options.[23] This is likely to be particularly pronounced for individuals from disadvantaged backgrounds who make up a disproportionately large number of students pursuing technical and vocational pathways. Recent estimates suggest that FSM students make up only 16.7% of students in Key Stage 5 (16-18 years) academic pathways in comparison to 28% on vocational pathways.[24] The range and variability of technical options available make these pathways more difficult to navigate,[25] although current reforms to technical qualifications should help to improve this. It is worth noting that post-16 decisions tend to be considerably more complex for 'lower attainers' (those who do not achieve grade 4 in both English and maths GCSEs at the end of Key Stage 4). These students have more restricted options and are less likely to stay in their own school's sixth form than for their higher attaining peers; disadvantaged young people are over-represented amongst 'lower attainers'. [26]

Lack of information can also lead to some students showing 'career confusion', whereby their career goal does not align with their education background.[27] The complexity of various pathways means that some students may drop certain subjects at GCSE and not realise the limiting impact that can have on their future options. This misalignment, whereby students plan to undertake less education than required for their chosen profession, is more common in disadvantaged students. OECD PISA data collected from 2018, suggested that nearly 40% of disadvantaged UK students surveyed, who wanted a professional or managerial career, had no plans to complete any tertiary education. This was in comparison to 10% of advantaged students. [28]

The complexity of navigating post-16 options, combined with reduced cognitive bandwidth (due to competing pressures) and more limited informal support (as discussed in section 5.2.2.1.) may lead to greater disengagement. Indeed, attendees at the consultation events spoke about disadvantaged students being overwhelmed by the amount of information on options. A couple of attendees also noted that application forms can be a barrier, due to young people's lack of willingness to complete them, or to write much for them.

5.2. Opportunity barriers

Within the COM-B model, opportunity refers to the physical and social environment that enables, or inhibits, the target behaviour.

5.2.1. Social networks

The literature indicates that disadvantaged students have a greater tendency to rely on informal (or "hot") career information from their social networks over formal (or "cold") information.[29] This preference for informal in-person support was also raised at one of the consultation events. However, this may be limiting as socioeconomically disadvantaged young people typically have lower social capital (discussed further in section 5.2.2.3.) Furthermore, informal supporters, including teachers, often lack up-to-date, comprehensive careers knowledge, particularly with regard to non-academic routes;[30] and their advice may be skewed by their own experiences or perceptions of the young person they are advising. For example, some school staff have too low expectations of

[23] Behavioural Insights Team (2016). Moments of Choice. [commissioned by the Careers & Enterprise Company]
[24] Rodeiro, C. V., & Vitello, S. (2020). Vocational Qualifications at Key Stage 4 and Key Stage 5: who takes them and how they fit into students' programmes of study.
[25] House of Lords Select Committee on Social Mobility. (2016). Overlooked and left behind: improving the transition from school to work for the majority of young people.
[26] Lupton, R., Thomson, S., Velthuis, S. & Unwin., L. (2021). Moving on from initial GCSE 'failure': Post-16 transitions for 'lower attainers' and why the English education system must do better.
[27] Mann, A., Denis, V., & Schleicher, A. (2020). Dream jobs?: teenagers' career aspirations and the future of work.
[28] ibid.
[29] Behavioural Insights Team (2016). Moments of Choice. [commissioned by the Careers & Enterprise Company]
Hughes, D. (2017). User insight research into post-16 choices: a report by CFE Research with Deirdre Hughes. December 2017.
[30] BIT (2018) Improving Teach Advice on Higher Education: A Solution Report for Advancing Access;
Teach First: Kashefpakdel, K., Rehill, J., & Hughes, D. (2019). Career-related learning in primary: The role of primary teachers and schools in preparing children for the future.;
House of Lords Select Committee on Social Mobility (2016). Overlooked and left behind: improving the transition from school to work for the majority of young people.

some pupils,[31] and can create a culture in which pupils only consider a narrow range of options.[32]

5.2.2.1. Families, including parents

Every consultation event included a discussion of the influence of the young people's families, including their parents. Some attendees noted that the family's preconceptions often limit the options that the young person will consider. This is in line with research suggesting that disadvantaged youth will often choose to go into the same line of work as their family and peers.[33] There may be multiple factors contributing to that decision including geography and actual attainment or qualifications of the young person, but the desire to work in a field that was familiar to them and acceptable to the wider family was noted as a key driver of the decision. [34]

Parental engagement is thought to help the development of information seeking and research skills, soft skills, such as self-efficacy, confidence, planning and goal setting behaviours, and employability skills, including teamwork and entrepreneurship.[35] However, various attendees at the consultation events also indicated that disadvantaged young people's families may not always be in the position to support career-related decisions. This could be for a variety of reasons, including: a lack of time and resources; previous negative experiences with education and/or employment; inexperience in post-16 education and/or employment; limited knowledge of the available options; and/or not seeing it as their role. Additionally, several consultation event attendees suggested that disadvantaged young people's families may be relatively less likely to model behaviours, attitudes and values relating to education and employment that are conducive to positive destinations.

5.2.2.2. Peer group

Whilst young people themselves may doubt the influence of their friends, teachers and educators are keen to stress the active role they have to play to reduce such influences.[36] Research suggests that peer acceptance can be a powerful driver of young people's study preferences at the post-16 decision-point.[37] Furthermore, it is students who are identified as 'less able', who are most at risk of making decisions in line with their peers.[38] This can become problematic when young people are faced with decisions over their post-16 destination and subjects to take, resulting in them pursuing next steps that may not be in line with their abilities or aspirations.

A recent study by the Social Mobility Commission also highlighted the role of peer experience when young people are considering post-16 options.[39] When siblings of disadvantaged students attended university and had a bad experience, it led to them being put off from applying themselves. There is also research which indicates that students from lower income backgrounds are more likely to have higher academic and career aspirations if they are friends with someone from a higher-income family. [40]

According to consultation event attendees, disadvantaged young people are less likely to have peers and other contacts role modelling the pursuit of a variety of positive education and careers destinations.

5.2.2.3. Wider networks

Disadvantaged young people typically have fewer social connections to draw upon (social capital), than their advantaged peers. Analysis of the ASPIRES 2 study found that students from less advantaged backgrounds (with low social capital) reported receiving significantly less career education than their peers with greater levels of

[31] Curtis, A., Power, S., Whitty, G., Exley, S., & Sasia, A. (2008). Primed for success? The characteristics and practices of state schools with good track records of entry into prestigious UK universities;
NFER Teacher Voice Omnibus February 2012 Survey: Teachers underestimate the proportion of students at Oxbridge that are from the state sector, and 48% of secondary teachers said they never or rarely advise their academically-gifted pupils to apply to Oxbridge.
[32] Reay, D., David, M., & Ball, S. (2001). Making a difference?: Institutional habituses and higher education choice. Sociological Research Online, 5(4), 1-12: the culture of the institution makes "some choices virtually unthinkable, others possible and yet others routine".
[33] Papoutsaki, D., Buzzeo, J., & Gray, H. (2020). Moving out to move on: understanding the link between migration, disadvantage and social mobility.

[34] Blenkinsop, S., McCrone, T., Wade, P., & Morris, M. (2006). How do young people make choices at 14 and 16. Slough: NFER.
[35] Barnes, S. A., Bimrose, J., Brown, A., Gough, J., & Wright, S. (2020). The role of parents and carers in providing careers guidance and how they can be better supported.
[36] Behavioural Insights Team (2016). Moments of Choice. [commissioned by the Careers & Enterprise Company]
[37] Foskett, N., Maringe, F., & Lumby, J., 2003, Pathways and progression at 16+-'fashion', peer influence and college choice, University of Southampton
[38] Blenkinsop, S., McCrone, T., Wade, P., & Morris, M. (2006). How do young people make choices at 14 and 16. Slough: NFER.
[39] Papoutsaki, D., Buzzeo, J., & Gray, H. (2020). Moving out to move on: understanding the link between migration, disadvantage and social mobility.
[40] Burgess, S., 2012, Friendship networks and young people's aspirations, Centre for Market and Public Organisation

social capital.[41] The strength of wider networks has also been found to be linked to wages later in life - with students who identified as having high social capital at 16, going on to earn on average 4.3% more than comparable participants without such social capital.[42]

One benefit of having a wider network of high social value is the ability to secure career related experiences such as job shadowing, work experience or more informal recruitment practises.[43] Certain job roles require specific work experience when recruiting candidates - one example being evidence of lab time or industry experience for life science roles.[44] This is competitive experience to get and is often assisted by relevant networks such as family or school based networks. Students from disadvantaged backgrounds may lack these routes in and also have less awareness of the importance of securing such experiences prior to applying to jobs.

One consultation event attendee also noted that disadvantaged young people have less opportunity to develop soft skills like communication by speaking with adults outside of home and school, which creates issues when it comes to job interviews.

5.2.3. Limits of school-mediated career support

5.2.3.1. Timing and frequency

Representatives at the consultation events raised concerns that school-mediated career support often comes too late, and that disadvantaged young people have already ruled out many options as not suitable for them. Findings from the literature support this. Several students interviewed for the ASPIRES 2 project suggest that career education becomes a rushed focus in year 11 and recalled that they had already made their decisions around subject choice by this time. [45]

Some attendees at the consultation events also noted that the kind of personalised guidance that is more important for disadvantaged groups is typically provided on a one-off basis, rather than in a sustained fashion. The ASPIRES 2 project found some students recalled having one short session with a teacher, whilst others could not recall any specialist time dedicated to careers.[46] Students from more advantaged backgrounds reported a higher frequency of career support and noted it being organised through their school.

5.2.3.2. Targeting support to those who need it

There is also evidence that access to career support relies on student self-referral in some schools.[47] As people have a tendency to go for the default option when presented with a choice,[48] requiring students to arrange a meeting with a career advisor will inevitably limit engagement. Furthermore, as disadvantaged students often have more competing pressures than their advantaged peers, putting the onus on students to seek out careers support may further disadvantage these students.

5.3. Motivation Barriers

Within the COM-B model, motivation refers to the reflective and automatic processes that drive the target behaviour, including both conscious and unconscious decision making.

5.3.1. Low career self-efficacy

The OECD conducted an international review of how young people's career aspirations are formed, which shows how socioeconomic status, gender and ethnicity shape the type of jobs that young people believe say they can

[41] Moote, J., & Archer, L. (2018). Failing to deliver? Exploring the current status of career education provision in England. Research Papers in Education, 33(2), 187-215.
[42] Mann, A., Kashefpakdel, E., & Percy, C. (2018). Socialised social capital?: The capacity of schools to use careers provision to compensate for social capital deficiencies among teenagers. In Essays on Employer Engagement in Education (pp. 68-83). Routledge.
[43] Hughes, D. (2017). User insight research into post-16 choices: a report by CFE Research with Deirdre Hughes. December 2017
[44] Ashley, L., Birkett, H., Duberley, J., & Kenny, E. (2016). Socio-Economic Diversity in Life Sciences and Investment Banking.
[45] Moote, J., & Archer, L. (2018). Failing to deliver? Exploring the current status of career education provision in England. Research Papers in Education, 33(2), 187-215.
[46] ibid
[47] ibid
[48] Jachimowicz, J., Duncan, S., Weber, E., & Johnson, E. (2019). When and why defaults influence decisions: A meta-analysis of default effects. Behavioural Public Policy, 3(2), 159-186.

and will achieve.[49] Class-based stereotypes can reduce career self-efficacy and restrict the education and career options that young people from low socioeconomic backgrounds perceive as available to them.[50] Such stereotypes may be held by the young person themselves and/or close personal influencers, such as their parents.

There is evidence to suggest that by the age of 15 high achieving students from lower socioeconomic backgrounds are four times less likely to hold higher occupational aspirations than similarly performing peers from higher SES backgrounds.[51] This was reinforced at the consultation events, where a number of representatives stated that young people have already formed a perception of their own ability and what they are capable of by the time they leave primary school, and that this is reinforced at the secondary level. It was suggested that, due to a perception of limited options, many young people are drifting in Further Education college without having made a positive choice about what they want to do, making it less likely that they will stay and thrive.

Consultation event attendees highlighted the particular struggles experienced by those who are judged to have failed by the system (either through school exams or exclusions) in terms of low self-confidence, disillusionment and difficulty seeing themselves in a positive future. This is supported by the literature.[52] There is also evidence that shows how students' academic ability can be impacted once attention is drawn to their SES. One example demonstrated how reminding a student of their parental income and occupation prior to taking a maths and verbal test resulted in worse performance in lower SES students.[53]

5.4. Structural barriers

In addition to the barriers outlined above, which could be addressed through career support, there are a number of structural barriers - related to wider social or practical constraints - which can inhibit disadvantaged young people from achieving positive education and career destinations. These include:

5.4.1. Financial barriers

Financial pressures mean that disadvantaged students may have a limited choice set, due to a greater need to consider immediate earning potential, the funding available for different options, and the cost of travel or accommodation.[54]

5.4.2. Digital exclusion

Digital exclusion has become an increasingly pressing barrier in light of the COVID-19 pandemic with several research groups highlighting how disadvantaged students have been disproportionately affected. Survey data from April 2020, suggests that one in five FSM pupils had no access to a computer at home.[55] Employers and training providers have been encouraged to provide work experience online in a virtual setting and conduct virtual tours of their workplaces,[56] which could risk leaving those without digital access behind.

5.4.3. Lower attainment, skills and experience

Young people from disadvantaged backgrounds are more likely to experience lower attainment[57] and pursue

[49] Mann, A., Denis, V., Schleicher, A., Ekhtiari, H., Forsyth, T., Liu, E., & Chambers, N. (2020). Dream Jobs? Teenagers' Career Aspirations and the Future of Work.
[50] ibid
[51] ibid
[52] Lupton, R., Thomson, S., Velthuis, S. & Unwin., L. (2021). Moving on from initial GCSE 'failure': Post-16 transitions for 'lower attainers' and why the English education system must do better.
[53] Harrison, L. A., Stevens, C. M., Monty, A. N., & Coakley, C. A. (2006). The consequences of stereotype threat on the academic performance of White and non-White lower income college students. Social Psychology of Education, 9(3), 341-357.
[54] Hughes, D. (2017). User insight research into post-16 choices: a report by CFE Research with Deirdre Hughes. December 2017.
[55] Green, F. (2020). Schoolwork in lockdown: new evidence on the epidemic of educational poverty. Centre for Learning and Life Chances in Knowledge Economies and Societies (LLAKES), Research Paper, 67.
[56] Youth Employment Group. (2020). Securing A Place For Young People In The Nation's Economic Recovery: A Rapid Response To COVID-19
[57] Impetus, National Institute of Economic and Social Research (2019). Research briefing 1: establishing the employment gap.

technical qualifications which are less well understood by employers.[58] These factors could result in fewer opportunities in the labour market. However, improved attainment, skills and experience can be positive outcomes of career support. [59]

5.4.4. Geographical barriers

As many local regions are lacking in job opportunities, particularly deprived areas in which disadvantaged students are more likely to live, this places a strong constraint on young people's prospects.[60]

Key considerations

Overview of barriers

Career support interventions should seek to target the following barriers to support young people from more disadvantaged backgrounds to achieve positive educational and career destinations. There will be individual differences in the extent to which these barriers inhibit access to education or employment opportunities, so it is important to understand which barriers or combination of barriers are most at play in real life contexts. Section 6 sets out evidence-based approaches to help tackle these barriers.

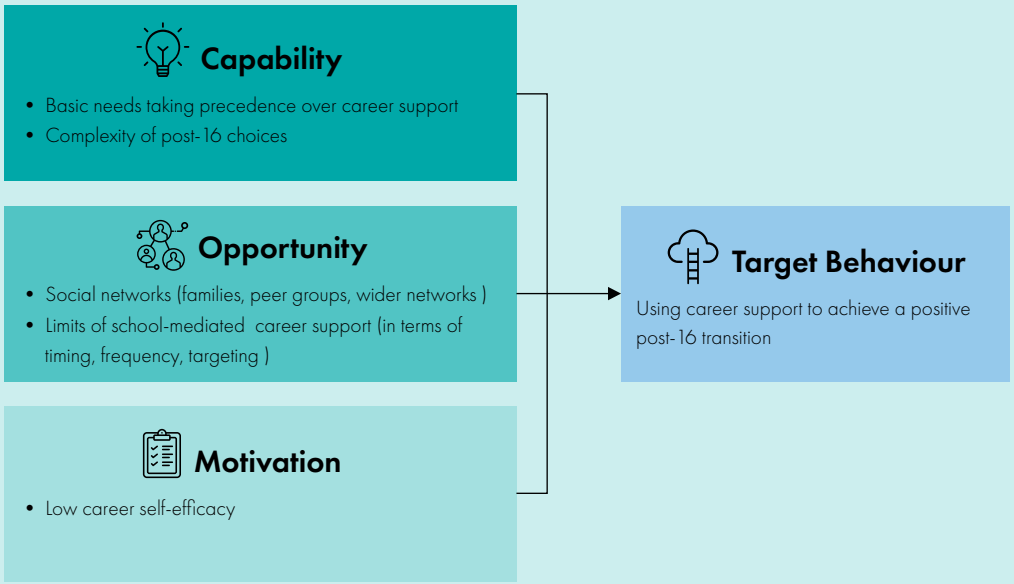


Figure 1. COM-B model of behaviour change.

Structural barriers such as limited finance; access to technology; lower attainment; and geography can also make it harder for young people from more disadvantaged backgrounds to achieve positive education and career destinations.

[58] House of Lords Select Committee on Social Mobility. (2016). Overlooked and left behind: improving the transition from school to work for the majority of young people.
[59] Education and Employers Research. (2019). Motivated to Achieve: How encounters with the world of work can change attitudes and improve academic attainment.
[60] Papoutsaki, D., Buzzeo, J., & Gray, H. (2020). Moving out to move on: understanding the link between migration, disadvantage and social mobility

Young people's needs at points of transition
Insights from the literature and consultation events suggest young people from more disadvantaged backgrounds require repeat career support, rather than one-off provision. Career support targeted at the needs of this cohort should aim to fulfil the following criteria:

- Focus on building aspirations at an earlier age (e.g. primary school or early secondary school). As discussed in section 6.1 below, early career support can help overcome stereotypes and expose young people to a wider set of options. It may also give disadvantaged students more time and opportunity to gain the experience they need for certain pathways.
- Help students reliably compare options and navigate complex issues at points of transition. In year 11, when students engage more proactively with career support, young people from more disadvantaged backgrounds may need greater support to reliably compare options, manage uncertainties associated with the transition, and troubleshoot issues (e.g. access funding, not achieving entry requirements).
- Career support available to all students should aim to support social mobility. For example, by seeking out more relatable role models (e.g. employers or alumni), encouraging students who would most benefit to attend employer events, and centrally coordinating work experience.
- Provision targeted at most disadvantaged should seek to avoid stigmatising this group. For example by reassuring students who are prioritised for interventions that post-16 choices are inherently complex and it is common to experience confusion or low self-belief whilst exploring education or career options.

6. Principles of effective career interventions

The aim of the following section is to explore the characteristics of career support interventions that enable successful transitions to education and employment among disadvantaged students. As discussed in the methodology section, this includes interventions that relate to career support with young people (aged 16-24), primarily those targeted at young people from disadvantaged or underrepresented groups, which have been evaluated. Where the evidence relates to international studies this is clearly stated. The quality of the evidence base and any gaps are also discussed.

6.1. Building aspirations and overcoming stereotypes

Overview
This section covers interventions designed to raise young people's career aspirations and counter stereotypical beliefs they may hold about their abilities.

Barriers targeted

- Low career self-efficacy. Class-based stereotypes can reduce career self-efficacy and restrict the education and career options that young people from low socioeconomic backgrounds perceive as available to them. The most vulnerable young people may have also faced multiple difficulties, including exam failures and suspension, which mean they struggle to view themselves as succeeding in the future.
- Social networks. Young people from disadvantaged backgrounds have less exposure to a wide range of professions or opportunities to develop the relevant skills and experiences for more aspirational occupations. Engaging with career support at an earlier age gives disadvantaged students more time and opportunity to get the experience they may need for certain pathways.

Key principles for interventions

- Occur well in advance of transition points. Career based aspirations and stereotypes related to them are formed from an early age. There is a growing evidence base to support introducing careers based interventions in primary school.
- Include activities to boost self-efficacy. Interventions, which incorporate success messages, positive feedback or goal setting can be beneficial in increasing self-efficacy.

Strength of evidence

- The quality of the evidence base, relating to aspiration building, is comparatively high. Interventions have used a variety of experimental methodologies (including randomised control trials (RCT's) with the target age group. Some interventions have been run as pilots within schools with smaller samples. These provide a useful starting point for further exploration.

The following sections set out evidence of career support interventions, from studies with primary and secondary school students, to build aspirations and counteract stereotypes.

6.1.1. Early interventions

There have been calls for career education to begin at an earlier age within schools, with some research highlighting the benefits of career-related learning beginning in primary school.[61] Career support interventions in primary school are shown to help challenge the stereotypes children hold around job roles, broaden student aspirations[62] and support a successful transition between primary and secondary school.[63] Early interventions can have a lasting impact on how young people perceive different occupations and the subjects that support them.[64]

The Pathfinder programme is one example of a Key Stage 2 intervention, which aimed to boost education and career aspirations among disadvantaged pupils.[65] The programme focused on 5,000 year 6 pupils (aged 10 or 11 years old) and was piloted across 7 local authorities. The 38 schools who took part in the intervention worked individually with their local authority to develop a bespoke career programme for their students. Interventions across the schools can be categorised into four broad themes:

- Integrating career-related learning into the curriculum. Some used a role playing resource to help pupils build connections between education, work and lifestyle. Other schools encouraged students to write letters to local employers to set up visits and talks.

- School visitors. Visitors came into schools to help provide insight around certain career options. Participants were carefully picked to help minimise career-related stereotyping, examples included a female forensic scientist and a male nurse.

- External school visits. Trips to local sites, such as museums and universities, were used to broaden awareness of opportunities within the local areas.

- Transition. Students visited secondary school prior to transition, students took part in a mentoring scheme with year nine pupils.

The programme was evaluated using a mixed-method approach; primarily interviews and surveys comparing pupil data from the Pathfinder schools with 120 matched comparison control schools. Overall, self-reported data from students shows positive effects on awareness and confidence of career options and a decrease in stereotypical thinking around potential jobs. Future interventions with primary school pupils should seek to review which of the above intervention activities or combination of activities have the greatest impact.

Multiple attendees at the consultation events also noted that there is a gap in career provision in Key Stage 3 and that interventions during this time could be particularly impactful. It was stressed that this should not be left solely until decision points, when the young person is likely to experience information overload. This is endorsed by a qualitative study with 24 young people in different post-16 settings; including sixth forms, sixth form colleges, university technical colleges, further education colleges, apprenticeships and higher education.[66] This study indicates that providing career support at an earlier age gives disadvantaged students more time and opportunity to get the experience they may need for certain pathways.

6.1.2. Activities to boost self-efficacy

The best evidence of career support designed to actively counteract career-related stereotypes comes from research to encourage female students to pursue qualifications in science, technology, engineering, and maths (STEM). The following activities have been shown to be effective in encouraging students to consider education or

[61] Kashefpakdel, K., Rehill, J., & Hughes, D. (2019). Career-related learning in primary: The role of primary teachers and schools in preparing children for the future.
[62] Education and Employers (2018) Introducing Primary Children to the World of Work, Working Paper, London: Education and Employers
[63] Mann, A., Rehill, J. & Kashefpakdel, E. T., (2018) Employer Engagement in Education: Insights from international evidence for effective practice and future research.
[64] Howard, K. A., Kimberly, A. S., Flanagan, S., Castine, E., Walsh, M. E. (2015) "Perceived Influences on the Career Choices of Children and Youth: An exploratory study", International Journal for Educational and Vocational Guidance, Vol.15/2, pp.99-111.
[65] Wade, P., Bergeron, C., White, K., Teeman, D., Sims, D., & Mehta, P. (2011). Key Stage 2 career-related learning pathfinder evaluation (Research Report DFE-RR116).
[66] Hughes, D. (2017). User insight research into post-16 choices: a report by CFE Research with Deirdre Hughes. December 2017.

employment options they may otherwise discount due to low self-efficacy or internalised prejudice.

A career counselling group designed to increase STEM self-efficacy among female students (aged 14-16 years) was tested in the US.[67] The intervention included 9 weekly sessions focused on discussing the barriers and facilitators for taking a STEM subject, feedback and information about STEM careers. Students who received the intervention showed significant improvements in relation to their STEM self-efficacy (average increase of .99 on a Likert scale measure) and subsequent confidence when making career based decisions (average increase of 1.54 on a Likert scale measure). Although the sample size for this study was small (n=90), it is a useful starting point for understanding the format and focus of interventions that might help to boost career self-efficacy.

In another study, designed by BIT, three classroom based exercises were used to encourage female students in years 10 and 11, to select STEM A-levels.[68] These interventions were based upon the expectancy-value model, which suggests that educational decisions are based upon expectations of success and perceptions of value of a particular subject or career path.[69] Each activity involved students reviewing information, intended to promote self-belief and the perceived value of STEM subjects, and writing a message to future students to consolidate key information. The written elements of these activities draws on evidence of 'self-persuasion', which is the premise that people are more inclined to respond to their own argument in favour of carrying out a particular behaviour than to someone else's instruction, as this preserves their autonomy.[70] A pre-post study design was used to evaluate these interventions, comparing self-reported intentions to study STEM subjects before and after completing the interventions. Following the intervention high-achieving female students were more likely to say they intended to study two or more STEM A-levels, by two percentage points (44% to 46%). There was also a strong relationship between their reported intention and their final A-level choices.

6.1.3 Teacher CPD

Some of the attendees at consultation events suggested that teachers, who are providing education or career advice either formally or informally, should be offered high quality and accessible training about post-16 options. Attendees flagged the risk that teachers may have a limited understanding of the range of options available and may be influenced by their own biases about an individual student's interests or capability when providing advice.

Research shows that some primary school teachers do feel they need additional support, such as training, to deliver career-related content as they lack confidence in their ability to offer this, particularly in relation to providing reliable information or exposure to vocational subjects.[71] It has also been acknowledged that the less traditional vocational post-16 routes are complicated and not necessarily well understood by teachers. This can result in students, who would be a good fit for such courses, being advised against them, simply because teachers may have misunderstood or have an unconscious bias against them. [72]

[67] Falco, L. D., & Summers, J. J. (2019). Improving career decision self-efficacy and STEM self-efficacy in high school girls: Evaluation of an intervention. Journal of career development, 46(1), 62-76.
[68] Great Britain. Department for Education Behavioural Insights Team (Organisation). (2020). Applying behavioural insights to increase female students' uptake of STEM subjects at A Level.
[69] Eccles, J. S. (2015). Gendered socialization of STEM interests in the family. International Journal of Gender, Science and Technology, 7(2), 116-132.Wang, M. T., & Degol, J. (2013). Motivational pathways to STEM career choices: Using expectancy– value perspective to understand individual and gender differences in STEM fields. Developmental Review, 33(4), 304-340.
[70] Yeager, D. S., Henderson, M. D., Paunesku, D., Walton, G. M., D'Mello, S., Spitzer, B. J., & Duckworth, A. L. (2014). Boring but important: A self-transcendent purpose for learning fosters academic self-regulation. Journal of personality and social psychology, 107(4), 559.
[71] Kashefpakdel, K., Rehill, J., & Hughes, D. (2019). Career-related learning in primary: The role of primary teachers and schools in preparing children for the future
[72] House of Lords Select Committee on Social Mobility (2016). Overlooked and left behind: improving the transition from school to work for the majority of young people.

6.2. Parental Engagement

Overview

This section covers interventions aimed at engaging parents and educating them on the different routes and opportunities available to their children.

Barriers targeted

- Social networks / Low career self-efficacy / Complexity of post-16 choices. Parents can have a big impact on their decision-making processes around post-16 options. Parents in lower SES groups may be inhibited from providing career support due to a lack of time and resources; their own negative experiences or inexperience in post-16 education and/or employment; or limited knowledge of the available options.

Key principles for interventions

- Timeliness. Provide practical tips and support on how parents can support their child with education and career options and transitions in advance of a decision point, i.e. allowing time to have those conversations.
- Create a non-threatening context. Parents may have negative associations with school, especially if they faced difficulties. Consider how to make career events more welcoming e.g. by hosting events off the school campus or creating anonymous ways for them to contribute.
- Consider the best mode of communication. As online access may not be possible for all, text messages, leaflets or outreach from relatable messengers may be more accessible.

Strength of evidence

There is a lack of specific parental engagement interventions in relation to career decisions within the UK. Several studies have been run in other countries but have small sample sizes and are not evidenced by RCTs.

Parental interactions help to form children's early understanding of what the shape of their career will be. Qualitative research with career practitioners indicates that parents provide career support in four key ways: [73]

1. Practical support, e.g. by helping with CV writing, researching and analysing information to input to discussions, financial support;
2. Career-related modelling, by implicitly or explicitly sharing their own examples and experiences;
3. Verbal encouragement, by praising (or discouraging, either actively or inadvertently) educational and career choices;
4. Emotional support, by enabling a safe space to discuss these ideas and decisions.

Many of the attendees at the consultation events talked about the importance of engaging parents with school-mediated career support to open their minds to a broader range of education and career opportunities. It was widely acknowledged that parents are powerful influencers of young people's education and employment destinations, however many do not know how best to support their child with their education and career choices.

[73] Barnes, S. A., Bimrose, J., Brown, A., Gough, J., & Wright, S. (2020). The role of parents and carers in providing careers guidance and how they can be better supported.

6.2.1. Parental engagement interventions

Parental engagement interventions tend to involve sharing information about post-16 education or career options with parents at key decision points for their child, either via leaflets, websites, or facilitated workshops.

In a programme in Canada career counselling professionals facilitated workshops with students aged 15- 18 and their parents.[74] The full programme ran over two years and included a combination of student only workshops and workshops for parents as well. The programme was run after school to accommodate working parents. The modules aimed at parents included workshops on:

1. Career development, which aimed to help parents understand career development and how best to support their children through the process

2. Transition management, which incorporated resilience building and highlighted the importance of support networks in the decision making process.

Students who took part were significantly more likely to graduate from high school and enrol in University (52.7% vs. 47.9% among students who did not receive the intervention). This finding was consistent for students from low income families.

An initiative targeted solely at parents was tested in Australia - the Parents As Career Transitions Support Programme - which consisted of three two-hour workshops with a trained facilitator. Parents were taught how to support their children's aspirations, while building their own knowledge of in-school support and the various post-16 pathways.[75] In a follow up survey, participating parents indicated that they felt more confident in supporting their children and understood the various transition points better. Whilst these findings generally seem positive it is worth noting that the evaluation did not review the longer term impact or causal effect of the intervention on young people's post-16 choices. Furthermore, this study did not track the socioeconomic status of participants so it is not possible to assess the specific impact on parents or young people from disadvantaged backgrounds.

Parental engagement was incorporated into the trial to promote uptake of STEM A levels, run by BIT.[76] Parents were sent an email from an authority figure within their child's school containing a link to a website. The website highlighted the usefulness of STEM A-Levels for a range of careers and within daily life; and contained suggestions on how best parents could talk to their children about A-Level choices. In the schools which were randomly allocated to receive the parent intervention (n=30), students were significantly more likely (by 4 percentage points) to state the intention to study two or more STEM A-Levels, a prerequisite for studying STEM subjects at university. There was also a 7 percentage point increase in the amount of positive self-reported discussions held with parents about A-Level choices following the intervention. However, due to the sample size, these findings should be viewed cautiously.

6.2.2 Reaching more disengaged parents

Some attendees at the consultation events indicated that parents from more disadvantaged backgrounds may be harder to engage with school-mediated support due to their own negative experiences with education or employment and suggested strategies to promote engagement. Many of these ideas align with the recommendations of career practitioners in a published research paper, although it is worth noting that none of these have been empirically evaluated.[77] Strategies include:

- Inviting parents to attend career events in welcoming environments e.g. off the school campus to minimise negative associations; hosting events online to offer scope for parents to attend anonymously; providing free food and drink such as breakfast or coffee clubs.

[74] Ford, R., & Kwakye, I. (2016). Future to discover: Sixth year post-secondary impacts report. Ottawa, Canada: Social Research and Demonstration Corporation.
[75] Borlagdan, J., Peyton, K., Peyton, K., & Borlagdan, J. (2014). A conversation that never stops: an indicative study of the Parents as Career Transition Support program
[76] Great Britain. Department for Education Behavioural Insights Team (2020). Applying behavioural insights to increase female students' uptake of STEM subjects at A Level.
[77] Barnes, S. A., Bimrose, J., Brown, A., Gough, J., & Wright, S. (2020). The role of parents and carers in providing careers guidance and how they can be better supported.

- Using timely communications to help parents support their child with education or career choices, e.g. putting career plans on report cards; encouraging parents to get involved with career activities though homework tasks; commencing parental engagement in year 7 which was suggested as a point that parents are closely involved in their child's secondary education.
- Including parents in development of school-mediated career support provision and strategy, for example utilising their networks to help facilitate employer engagement.
- Inviting parents along to events previously for students only (careers fairs, guidance meetings, employer engagement events).

An alternative mode of engagement was tested in the 'Parent Matters Project' in rural areas of Tasmania, where parents were recruited and trained to reach out to less engaged parents. Their role was to develop and deliver at least one event within their community that would share information about further education pathways and the different options available to their children. The initial results suggested the project did help to improve parents' knowledge and confidence around supporting their children to make these decisions and was deemed a success by the wider community.[78] The project was evaluated using a mixture of self-report surveys of parents, focus groups and further interviews of lead parents and community partners. It should be noted that the sample size is small, with the intervention only being run within three communities and no control group used, it would therefore need to be run on a larger scale, ideally with a comparison group to be confident of its impact.

6.3. Peer Support

Overview

This section looks at peer support interventions within education, specifically peer mentoring and alumni programmes. Peer-mentoring initiatives involve matching identified students with mentors who are close in age and may share similar experience or background. Alumni programmes use relatable role models from the same school to share their education and career experiences.

Barriers targeted

- **Social networks.** Young people from more disadvantaged backgrounds tend to have fewer relatable role models and students who are identified as 'less able' are more swayed by the decisions of their peers. This can result in young people making decisions that do not accurately reflect their aspirations or abilities.
- **Low career self-efficacy:** Young people may experience low confidence in their own abilities as a result of previous low performance in exams, which ultimately may reduce their future expectations of success.

Key principles for interventions

- Similarities. Mentor-mentee relationships are most successful when individuals are matched based on a shared interest, such as career aspirations or program of study. Alumni programmes use relatable messengers with similar backgrounds.
- Mentor characteristics: Mentors who are motivated by their own self-enhancement goals tend to put more effort in towards helping their mentee succeed. Mentor- mentee relationships were also more positive when clear expectations had been set in advance around the frequency of sessions and the availability of the mentor outside those sessions.

[78] Kilpatrick, S., Burns, G., Barnes, R. K., Kerrison, M., & Fischer, S. (2020). Parents matter: Empowering parents to inform other parents of post-year 10 pathway options in disadvantaged communities. Australian and International Journal of Rural Education, 30(3), 21-35.

Strength of evidence

- Although there has been a lot of research around the topic of peer mentoring, specific attention has not focused on its impact on careers decision making. The studies referenced here include smaller sample sizes so caution is advised in relation to the impact observed.

People tend to act in similar ways to others in their social group. For young people whose social references do not include people applying to university or moving away for a job, the likelihood of them pursuing it themselves is low, as they have adopted a 'not for them' attitude.[79] Exposure to role models via mentors and alumni programmes can be beneficial in breaking down these biases.

6.3.1. Mentoring

Traditionally mentoring involves an older, more experienced person being paired with a younger person to provide either a task-related or career-related function; or a more psychosocial support function.[80] Peer mentoring, which was proposed by a few attendees at the consultation events, differs as it involves matching mentees with a mentor who is closer in age (although often from a different year group), experience or background.[81]

A review of 73 youth mentoring programmes found mentoring interventions to have a moderate effect across a range of outcomes; including school attendance, attainment and drop-out.[82] The meta-analysis concluded peer mentoring programmes to be as effective as the more traditional adult-young person mentoring set up. Mentoring programmes were most effective when:

- They are targeted at young people from backgrounds with greater levels of vulnerability, such as risk of academic failure.[83]

- Mentor and mentee are matched on the basis of shared interest such as career aspirations. Perceptions of similarity can help to build stronger and higher quality relationships, creating a more beneficial and long lasting mentor-mentee bond. One example study involved a programme matching 156 young people at risk of violence with community business partners on the basis of shared career interests.[84] The students attended their business site for two hours four times a week and performed career related duties under the guidance of their mentor. The programme led to significant reductions in the number of days of suspensions for students who were mentored, in comparison to the control group.

One study paired disadvantaged students, defined here as eligible for FSM, looked after children or children with parents in the armed forces, with STEM undergraduate students in the lead up to their science GCSE exams.[85] Students (n= 86) were recruited from four schools and half were randomly assigned to receive a mentor. Mentoring sessions took place in school, for one hour a week during a 23 week period over the course of an academic year. Prior to the exams, each mentee also had a six hour mentor session at the university, which also included a tour of the university and a talk about higher education opportunities.

[79] Lavecchia, A. M., Liu, H., & Oreopoulos, P. (2014). Behavioral economics of education: Progress and possibilities (No. w20609). National Bureau of Economic Research

80 Kram, K. & Isabella, L. (1985) Mentoring alternatives: the role of peer relationships in career development, Academy of Management Journal, 28, 110–132.

[81] Angelique, H., Kyle, K. & Taylor, E. (2002) Mentors and muses: new strategies for academic success, Innovative Higher Education, 26, 195–209.

[82] DuBois, D. L., Portillo, N., Rhodes, J. E., Silverthorn, N., & Valentine, J. C. (2011). How effective are mentoring programs for youth? A systematic assessment of the evidence. Psychological Science in the Public Interest, 12(2), 57-91.

[83] Clarke, L. O. (2009). Effects of a school-based adult mentoring intervention on low income, urban high school freshmen judged to be at risk for dropout: A replication and extension (Unpublished doctoral dissertation). Rutgers, The State University of New Jersey, New Brunswick.

[84] Rollin, S. A., Kaiser-Ulrey, C., Potts, I., & Creason, A. H. (2003). A school-based violence prevention model for at-risk eighth grade youth. Psychology in the Schools, 40(4), 403-416.

[85] Sharpe, R., Abrahams, I., & Fotou, N. (2017). Does paired mentoring work? A study of the effectiveness and affective value of academically asymmetrical peer mentoring in supporting disadvantaged students in school science. Research in Science & Technological Education, 36(2), 205–225.

Students who took part in the interventions achieved significantly better GCSE grades than their predicted grade. These students also showed greater positivity towards science subjects following the intervention. Unexpectedly, the programme also had an impact on the self-reported career interests of mentors. A post-intervention survey found that a number of mentors were considering applying to teacher training and attributed their decision to their participation in the intervention. Although the intervention shows positive effects, the overall sample size was low and replication at a larger scale would be encouraged.

6.3.2. Alumni programmes / Non-stereotypical role models

A common approach to using relatable peers in school career programmes is to invite alumni back to give talks to students. One intervention trialled in six schools with a high proportion of FSM students, got school alumni back to co-teach a few relevant lessons with year nine students e.g. a playwright teaching an English lesson on dramatic monologues.[86] In these lessons the alumni also reflected on the importance of attaining C grades in English and Maths GCSEs and discussing their post-16 routes.

Overall, the intervention was seen as a novel idea, with some positive impacts on student aspiration and engagement in relation to their post 16 decisions. Qualitative interviews with students suggested that the intervention had a positive impact on pupil engagement with lessons, which was further corroborated by researchers observing the lessons and teacher surveys. The authors suggest that the programme's success was linked to having a close match between the alumni's skill and expertise and the subject matter of the lesson. However, the sample was very small and lacked the appropriate quantitative measures to really evaluate the impact.

Another example of the impact of alumni on students' post-16 options is evidenced in a trial run by BIT, which aimed to increase the number of students from disadvantaged backgrounds who had achieved good GCSEs applying to more selective universities.[87] Students in the intervention group received up to two hand-signed letters from a student at Bristol University with a similar background to them. The letters highlighted that the undergraduate students writing the letter were once in the same position as the reader, but have since realised that universities welcome students with their backgrounds. Students who received two letters were more likely to be offered and accept a place at a Russell Group university (17% and 34% increase respectively). This intervention highlights the power that receiving a message from a relatable role model can have on young people's aspirations, especially for those from more disadvantaged backgrounds.

6.4. Employer engagement

Overview
This section reviews school-mediated interventions that link up young people and employers, via work experience, career talks or employer mentoring.

Barriers targeted

- **Social networks.** Young people from more disadvantaged backgrounds have less scope to draw on their social networks to access opportunities in which they can gain exposure to work or develop career-relevant skills.

Key principles for interventions

- **Career talks.** Providing access to employers through talks within schools can help build up a form of proxy social capital that can support young people, who lack other networks. This is found to be one of the more impactful interventions in relation to young people's future earnings.

[86] Artess, J., Hooley, T., & Shepherd, C. (2017). Future First: Alumni in the Curriculum Evaluation 2015.
[87] Sanders, M., Chande, R., Selley, E., & Team, B. I. (2017). Encouraging people into university. London: Department for Education.

- **School-mediated work experience.** Giving schools the responsibility to make appropriate matches for placements allows young people to experience a workplace they may otherwise not have been able to.

Strength of evidence

- The current body of research lacks causal evidence from experimental methodologies; with a focus on smaller pilot or case study based interventions, or on large dataset analysis and correlation findings.

Employer engagement is at the heart of the Gatsby Benchmarks, with current guidance stating that all students should have at least two meaningful encounters with an employer each year - this can be in various formats, for example career talks, work experience, or employer mentoring.[88] Attendees at the consultation events talked about the value of employer engagement initiatives for students from disadvantaged backgrounds and the need to increase availability of opportunities. One attendee described their ambitions for every school department to be closely linked with a specific employer to build student-employer relationships and more credible links between the curriculum and the world of work.

As discussed below, school-mediated interventions that link up young people and employers can help level the playing field between disadvantaged and advantaged pupils in relation to their accessible networks.

6.4.1. Work experience

Research confirms that students at more advantaged schools (categorised by the proportion of FSM pupils) are more likely to pursue higher-status work experience placements. In a study with five schools in the Midlands, where proportion of FSM students ranged from 2% - 63%, the most advantaged school had the highest number of students in placements at offices, banks and companies (21%) and much lower number of students in non-professional settings (11%). The opposite was seen for the less advantaged schools, with one having only 5% of students at professional placements.[89]

The one exception to this pattern was one low SES school, which had around 15% students attending a medical or legal placement compared to the 5% seen in the other comparable schools. The key difference here was that this school organised the placements. Interviews with students from this school suggest their future career options had been widened by their work placement, with 50% now considering a career they previously thought they couldn't aspire to. Although this study is limited by its small sample size, it does highlight a possible benefit of schools facilitating work experience placements for disadvantaged students with less social capital.

6.4.2. Career talks

Access to career talks is found to be highly associated with increased wage premiums in later life amongst teenagers from lower socioeconomic status backgrounds.[90] This type of employer contact is thought to improve students' social capital by giving them access to useful information from trustworthy sources and opportunities for social networking.[91] A renowned study used the British Cohort Study data to investigate longitudinal correlations between employer engagement activities and later earnings.[92] In 1986, 16 year olds answered questionnaires about their participation in work experience, career talks or workplace visits. This data was then compared with

[88] Holman, J. (2014). Good career guidance. London: Gatsby Trust.
[89] Le Gallais, T., & Hatcher, R. (2014). How school work experience policies can widen student horizons or reproduce social inequality. Understanding employer engagement in education, 190-201.
[90] Mann, A., Kashefpakdel, E., & Percy, C. (2018). Socialised social capital? The capacity of schools to use careers provision to compensate for social capital deficiencies among teenagers. Essays on employer engagement in education, 68-83.
[91] Mann, A. and Percy, C. 2014. "Employer engagement in British secondary education: wage earning outcomes experienced by young adults" Journal of Education and Work 27:5, 496-523.
[92] Kashefpakdel, E. and Percy, C. 2016. "Career education that works: an economic analysis using the British Cohort Study" Journal of Education and Work, 30:3, 217-234

earnings of the cohort at age 26. Overall, attending a career talk at age 14-15 years was associated with an increased wage premium of 0.8% at 26.

A follow up study aimed to compare the impact of 'proxy' capital (e.g. attending a careers talk within school) and 'real' capital (e.g. a family contact who could get them a job). Proxy social capital, in the form of employer access through careers talks, was found to be most beneficial to students from lower socioeconomic backgrounds. Participants who lacked real social capital (n=691) but attended school mediated career talks with external employers earned 8.5% more on average than peers who believed social networks alone would help them secure work. Attending career talks had no significant impact on the earning of participants with real social capital (n=481).

With both studies there are limitations around the design, most notably that wage outcomes are the result of multiple influences and there may be other variables not controlled for impacting the results. However, they point to the power that even a short duration intervention, attending even just one or two careers talks, can have on young people's career and economic outcomes.

6.4.3. Employer mentoring

Interventions with greater intensity may be required to support the most vulnerable or disengaged young people. The ThinkForward programme is a five year programme that provides targeted support to 14 year olds, deemed to be at risk of leaving education or employment.[93] It is currently being tested with three separate cohorts in London, Nottingham and Kent; in 2020 the London cohort saw the first group of graduates who experienced the full five year programme. Both Nottingham and Kent cohorts have been running for three years.
Participating students are offered the following support throughout Key Stage 4:

- Dedicated support from a ThinkForward coach attached to their school, who helps them to create an initial action plan, which outlines expectations of both the coach and student. Coaches and students meet twice per half term for a planned session, which may also include other students.

- Access to a variety of skills and experience enhancing activities including workplace visits, work experience, and CV and interview workshops.

- A mentor, who is an employer from the local area, who they have 6-8 mentoring sessions with.

A pilot study of the programme with four schools was funded by the Education Endowment Fund (EEF) in 2016 to determine suitability for a larger scale RCT and see any impact on GCSE results, likelihood of continuation into post-16 education and pupil absences.[94] It was concluded that the programme was not ready for a larger scale evaluation due to issues of spillover effects around the coaches teaching other lessons. Although no impact was found on attainment and absences, the process evaluation highlighted how coaches and teachers found value in the programme. The programme is ongoing and the organisation recently published its own findings from its 2019 graduated cohorts in London and Nottingham (132 young people), showing that 86% of participants were in education, employment or training after six months. However, it is worth noting that at present, only overview findings have been published with little detail on the evaluation method, therefore it is hard to draw firm conclusions on the isolated impact of the intervention.

[93] ThinkForward (2020). Annual Review 2018/19 Better and Brighter Futures
[94] Education Endowment Foundation (2016). ThinkForward Evaluation report and executive summary

6.5. Personalised transition support

Overview
This section focuses on sustained, personalised support from a trusted adult offered at points of transition to help young people navigate choices and administrative processes, and troubleshoot any issues that arise.

Barriers targeted

- **Basic needs take precedence over career support / Complexity of post-16 choices.** Career decisions place a large cognitive burden on young people; for those from backgrounds with limited support, the pressure is even greater. The choices to be made are complex and standardised advice may not always meet the needs of a young person.
- **Limits of school-mediated career support.** The kind of personalised guidance that is more important for disadvantaged groups is typically provided on a one-off basis, rather than in a sustained fashion.

Key principles for interventions

- **Wrap around approach:** Programmes, which contain multiple interventions, which can be personalised to the needs of specific students are beneficial.
- **Using data to target students for preventative support.** Use real-time data to identify students in need of greater support and enrol them into programmes, which requires them to set goals. Ensuring regular feedback cycles can also help to keep young people on track.

Strength of evidence

- Several large scale trials have looked at the role of personalised transition support, although not focusing on the impact on career decisions. The evidence base discussed here is also heavily based within the US.

The process of making post-16 education and career decisions is often overwhelming for young people. Sustained, personalised transition support between a dedicated adult and a young person, was one of the interventions most commonly suggested by consultation event attendees. A more personalised approach allows flexibility to target support at the specific barriers an individual faces, this is particularly important for young people from a disadvantaged background, whose needs may fall outside more traditional career support. Attendees proposed some principles that should be central to this type of intervention:

- The formation of a positive, trusted relationship with the young person, and possibly their parents;
- The 'supporter' having good knowledge of a range of options and capacity to broker relationships with post-16 providers;
- Scope to offer practical support e.g. with completing applications, accessing finance, navigating physical journeys
- The involvement of the individual student in the design of the support offer.

The Learning and Work Institute reviewed 58 interventions - to improve academic attainment, engagement and later employment - among young people (aged 15-24 years) at risk of becoming NEET.[95] The review suggests that

[95] The Learning and Work Institute (2020). Evidence review: What works to support 15 to 24-year olds at risk of becoming NEET?

a 'wrap around' approach with multiple interventions, that can be flexed to individual needs, can benefit the most at-risk groups. Improving young people's confidence was a key driver in improving their engagement with career support; this came from interventions, which incorporated one-to-one meetings, a mentoring relationship and skill building activities.

One intervention, delivered in the US, provided personalised support to low income students, aged 17-18 years, in the transitional summer between graduating high school and starting college to help ensure the students enrolled.[96] Students (n=162) at seven high schools were randomly assigned to receive outreach from a trained college counsellor over the course of the summer. The counsellor provided financial information to address any concerns around gaps in funding, assisting with completion of paperwork, and supporting students with emotional concerns around attending college. Students who received this support were both more likely to enrol in college (47% compared to 32%) of students who received no proactive outreach) and more likely to attend after the summer break (41%, compared to 26% of students who received no proactive outreach).

In another US-based study, a preventative support intervention was tested with students, aged 14-15.[97] Educators found that a student's likelihood of completing high school, at age 18, could be predicted on the basis of their 9th grade attendance and attainment (the equivalent to year 10 in the UK education system). Student attendance and performance was tracked weekly, any dips in these measures triggered a meeting between the student and key staff members to discuss an action plan and set goals to help get them back on track. Between 2007 and 2013, the graduation rate rose by 25 percentage points to 82%, which represented an extra 6,900 students graduating.

As encouraged by the Gatsby Benchmarks, there is value in incorporating Labour Market Information (information about the salary levels and demands for different pathways and professions) in the career education that is used to support transitions; there is evidence that the provision of LMI can encourage young people to meaningfully engage with career support and consider a broader range of options. For example, in a randomised controlled trial focused on technical education with over 2,000 12-16 year-old secondary school students, the provision of LMI was associated with increased receptivity to technical education options, as well as improved recall of information about careers and technical routes into them.[98]

Interventions that aim to inform young people of the actual relative benefits and costs of attending university can help students to make more informed decisions. One intervention aimed to improve student awareness of the costs and benefits of their educational decisions, through access to information materials.[99] The study gave year 10 students in the treatment group (n=3184) a link to a website outlining costs and benefits of university, including wage return and employment prospect information. Within the email invite, they were offered incentives for going onto the website, such as a lottery to win various prizes. The intervention was found to significantly impact student knowledge of student finance: the number of students who reported that university fees were paid only after graduating and when in employment increased by 5.8 percentage points. There was also a 7.8 percentage point increase in the number of treatment group students who identified student loans as a cheaper and better way to borrow money than other loans. A post-intervention survey found students eligible for FSM were less likely to be put off university because of the cost.

The general consensus from such interventions is that information on costs and benefits around educational choices and financial aid does impact individuals' knowledge.[100] However, the research is limited by a lack of specific studies looking at the impact on actual behaviour, for example the number of students actually applying to university as a result of receiving this information.

[96] Castleman, B. L., Arnold, K., & Wartman, K. L. (2012). Stemming the tide of summer melt: An experimental study of the effects of post-high school summer intervention on low-income students' college enrollment. Journal of Research on Educational Effectiveness, 5(1), 1-17.
[97] Roderick, M., Kelley-Kemple, T., Johnson, D. W., & Beechum, N. O. (2014). Preventable Failure: Improvements in Long-Term Outcomes When High Schools Focused on the Ninth Grade Year. Research Summary. University of Chicago Consortium on Chicago School Research. 1313 East 60th Street, Chicago, IL 60637.
[98] The Behavioural Insights Team (2020). Behavioural insights and engagement with technical education. Department for Education report.
[99] McGuigan, M., McNally, S., & Wyness, G. (2016). Student awareness of costs and benefits of educational decisions: Effects of an information campaign. Journal of Human Capital, 10(4), 482-519.
[100] Mcnally, S. (2016). How important is career information and advice?. IZA World of Labor.

6.6. Applying behavioural insights to career support interventions

Behavioural insights is an approach that brings together evidence from a range of academic disciplines - most notably psychology and economics - to understand how people make choices, respond to situations, interact with others, perceive the world and behave. Using this realistic understanding of human behaviour to make small changes to an intervention can make a marked difference to its efficacy. In the context of career support, interventions that apply behavioural insights have been used to increase attendance at career advice sessions[101], encourage young people to consider and apply for post-16 options they may otherwise have ruled out,[102] [103]and persist in education or training.[104]

The following approaches are well-evidenced in the behavioural science literature and could be embedded within the career support interventions discussed previously to facilitate greater engagement and improve impact.

- **Relatable messengers to increase uptake of career support.** Sharing the experiences of someone who has taken part in a programme can help promote uptake among similar groups. It is an approach that has been used in various contexts, for example increasing charitable giving[105] and applications among teachers for leadership roles.[106] The Australian study on page 27, suggests this approach could be promising for increasing the perceived acceptability of career support among more disengaged parents or young people.

- **Communications to normalise feelings of insecurity or low self-efficacy.** As discussed above, low self-belief can inhibit young people from disadvantaged backgrounds from engaging with career support. BIT previously demonstrated that using an appointment reminder text message to boost self-belief: "'No one is born with a perfect career. Time & effort can boost your skills & CV...". reduced the number of missed National Careers Service appointments by 24%.[107] This approach could be applied to communications to promote uptake of career support among more disengaged young people or parents.

- **Short, low-cost activities to boost perceived similarity between young people and those offering support.** In a study in the US, teachers and students completed a short 'getting to know you' survey at the start of the school year and subsequently received feedback on the themes they had in common.[108] Those that took part in this exercise - particularly those from more troubled family backgrounds - reported higher perceptions of similarities with their teacher following the exercise. This short, low-cost activity could be used to increase trust and perceived reliability between young people and those offering career support; e.g. dedicated advisors, employers, or mentors.

- **Goal-setting activities to encourage repeat engagement and improve outcomes.** Goal-setting, in which learners set out what they hope to achieve on a course, is a commonly used practice in education and has been demonstrated to improve academic attainment and

[101] The Behavioural Insights Team (2019). Annual Update Report 2017-2018. (Page 22.)
[102] The Behavioural Insights Team (2020) Behavioural Insights and Engagement with Technical Education [unpublished]
[103] Great Britain. Department for Education Behavioural Insights Team (Organisation). (2017). Encouraging people into University.
[104] Great Britain. Department for Education Behavioural Insights Team (Organisation). (2018).Improving engagement and attainment in maths and English courses: insights from behavioural research
[105] The Cabinet Office Behavioural Insights team. (2013). Applying Behavioural Insights to Charitable Giving.
[106] The Behavioural Insight Team (2018). Can behaviourally informed communications increase applications, and appointments, to System Leadership roles?
[107] The Behavioural Insights Team (2019). Annual Update Report 2017-2018. (Page 22)
[108] Gehlbach, H., Brinkworth, M. E., King, A. M., Hsu, L. M., McIntyre, J., & Rogers, T. (2016). Creating birds of similar feathers: Leveraging similarity to improve teacher–student relationships and academic achievement. Journal of Educational Psychology, 108(3), 342.

retention.[109] The setting of goals and the formulation of 'if-then' plans, in which people preempt obstacles that may prevent them from achieving their goals, can have a powerful influence on people's ability to follow through with their intentions.[110] Goal-setting activities could be applied within career support activities to encourage young people to complete desired activities, particularly if out of school hours, and encourage repeat engagement.

- **Short reflective exercises, drawing on principles of 'self-persuasion'**, can increase pupils' willingness to consider a wider range of career options. BIT have trialled short activities which involve sharing testimonials from previous students to reinforce positive norms around the use of career support or the pursuit of certain pathways, and getting young people to write down their own intentions and motivations for behaving similarly. These activities make pupils more open to considering options they may have otherwise ruled out, for example technical education pathways and careers[111] or STEM A levels[112] (as discussed on page 23). Similar activities could be embedded within a wider career support programme to counteract stereotypes and encourage young people from disadvantaged backgrounds to consider a wider post-16 option set.

[109] Morisano, D., Hirsh, J.B., Peterson, J.B., Pihl, R.O., & Shore, B.M. (2010). Setting, Elaborating, and Reflecting on Personal Goals Improves Academic Performance. Journal of Applied Psychology, 95(2), 255-264.
Schippers, M.C., Scheepers, A.W.A., & Peterson, J.B. (2015). A scalable goal-setting intervention closes both the gender and ethnic minority achievement gap. Palgrave Commun, 1.
[110] Oettingen, G., Wittchen, M., & Gollwitzer, P. M. (2013). Regulating goal pursuit through mental contrasting with implementation intentions. In E. A. Locke & G. P. Latham (Eds.), New developments in goal setting and task performance (p. 523–548). Routledge/Taylor & Francis Group.
[111] The Behavioural Insights Team (2020) Behavioural Insights and Engagement with Technical Education [unpublished]
[112] Great Britain. Department for Education Behavioural Insights Team (Organisation). (2020). Applying behavioural insights to increase female students' uptake of STEM subjects at A Level.

7. Conclusion

Based on the insights and evidence that emerged from the consultation events and literature. We recommend that school-mediated career support reflects the following principles to support young people from disadvantaged backgrounds.

Principle 1: Target barriers that are exacerbated by economic disadvantage.

Those involved in designing career education strategies and programmes in schools and colleges should review how their offer targets the barriers set out in Figure 2 below. Wrap around approaches - which contain multiple interventions to tackle different barriers - and can be personalised to the needs of specific students are beneficial.

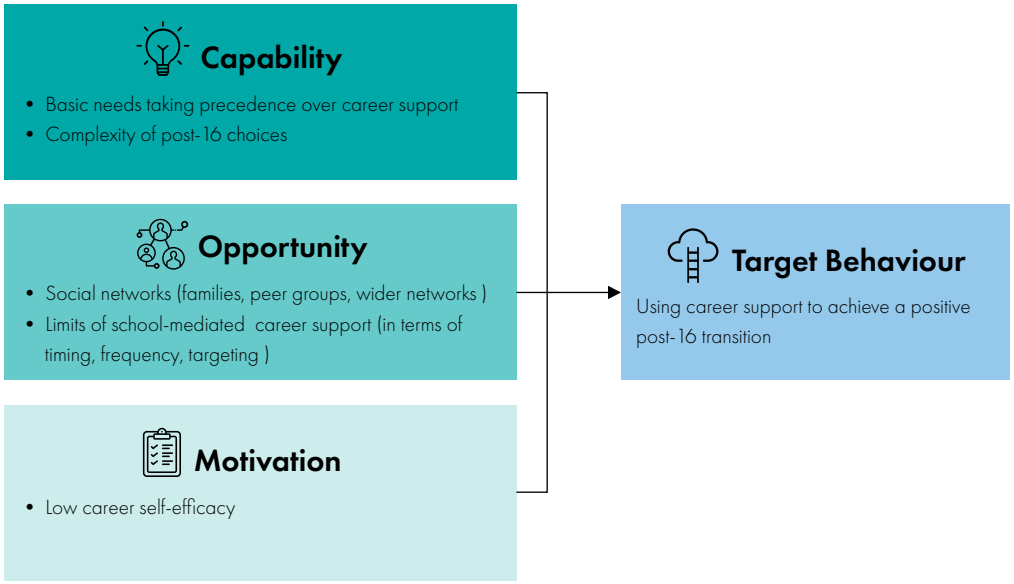


Figure 2. COM-B model of behaviour change.

As there will be individual differences in the extent to which these barriers affect the target audience, it could be beneficial to include young people and parents from low SES backgrounds in the development of school-mediated career support provision. Co-designing career support interventions with the target recipients could also help to increase engagement.

Principle 2: Occur on a repeat basis, rather than one-off provision.

Young people from more disadvantaged backgrounds require more personalised and sustained career support that comes on-stream before young people have ruled out options e.g. on the basis of class-based stereotypes. This should include:

- Early interventions (in primary or early secondary school) to build aspirations. Early career support can help overcome stereotypes and expose young people to a wider set of options. It may also give disadvantaged students more time and opportunity to gain the experience they need for certain pathways.

- Personalised transition support (in year 10-11) to help students reliably compare options and navigate complex issues. Young people from more disadvantaged backgrounds may need greater support to reliably

compare post-16 options, manage uncertainties associated with the transition, and troubleshoot issues (e.g. access funding, not achieving entry requirements).

Principle 3: Enable young people's influencers (e.g. parents or carers) to support them with careers-related activities.

Parental engagement interventions show good evidence-of-promise with disadvantaged groups and should be explored further. Parents and family networks heavily influence young people's education and career decisions but many parents do not know how best to support their child and those in lower SES groups may face additional barriers. Interventions typically involve sharing information about post-16 education or career options with parents at key decision points for their child, either via leaflets, websites, or facilitated workshops. Special efforts should be made to encourage more disengaged groups to take up support e.g. by hosting career events in non-threatening environments or using more relatable messengers as mediators.

Principle 4: Create social capital for young people with more limited networks e.g. through employer engagement and mentors.

There is strong evidence that interventions that help young people to build relationships with employers can provide a form of proxy social capital for disadvantaged young people who lack other networks, and lead to increased earnings in the longer term. Although the evidence in relation to peer role models (e.g. mentors and alumni programmes) is weaker, there is some indication that these activities can help to improve attainment. Schools and colleges can play an important role in establishing these relationships and should seek to facilitate work placements; use non-stereotypical role models for career talks; and match young people to mentors based on shared interest.

Principle 5: Use data to track engagement with career support and take additional measures to support at-risk students.

Collect individual-level attendance data at career events and provide preventative support to disengaged students from at-risk groups (e.g. low SES). Disengagement could be driven by a range of factors, for example low self-efficacy or overestimating the benefits of their own social capital. Students from at-risk groups, who do not participate in career support events or activities, should be prioritised for more intensive interventions e.g. wrap around support that can be personalised to the individual's needs.

Principle 6: Apply robust evaluation, ideally using experimental methods with behavioural outcomes.

The impact of career support with young people from disadvantaged backgrounds is an area that has not been widely empirically investigated in the UK. There is a need for further research to develop new career support interventions and further understand what works in relation to current approaches. Evaluations should explore the overarching impact of career support interventions in relation to real life outcomes (e.g. sustained engagement in post-16 pathways) and review how the components of interventions could be adapted to improve impact (for example, by applying behavioural insights to career support communications or activities).