



Evidence review:

Supporting access and student success for mature learners

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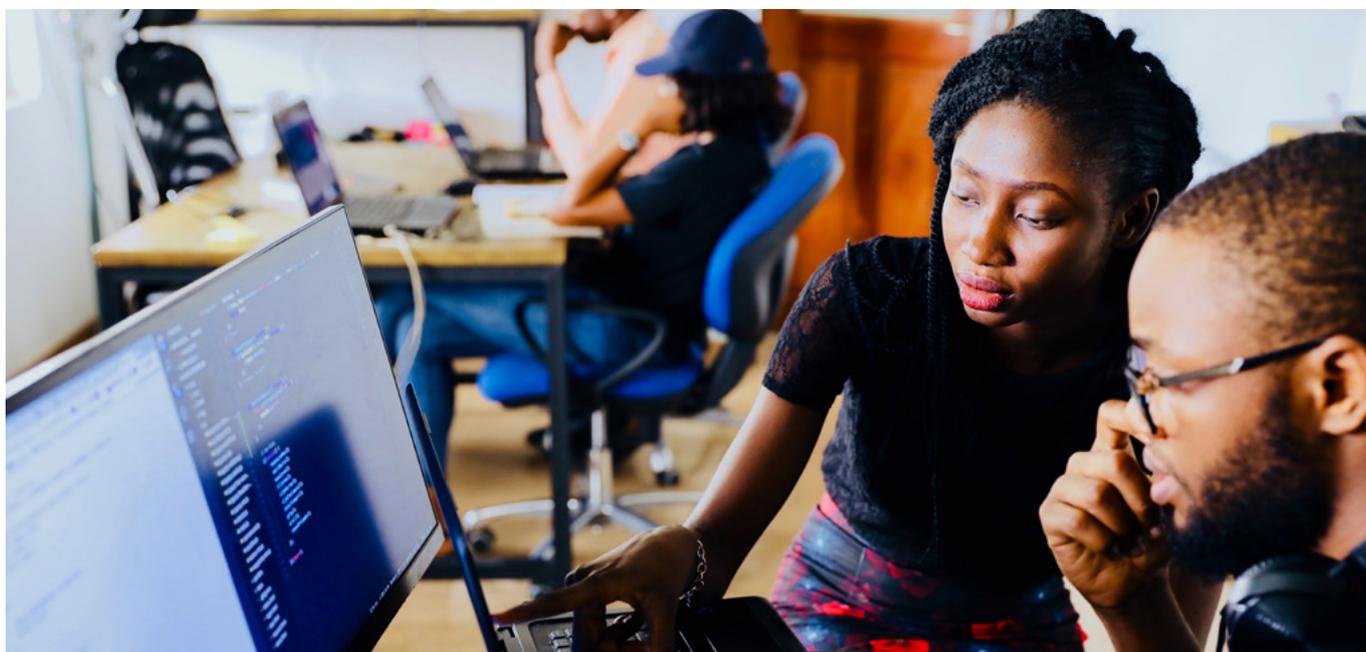
April 2021

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Executive Summary

- There are few rigorously evaluated studies relating to mature learners. The studies collected in this review, with a small number of exceptions, qualify only as 'weak evidence' according to the [Office for Students' \(OfS\) Standards of Evidence](#).¹
- The majority of the literature on mature students is descriptive and exploratory. This research studies self-selecting groups of students who were already engaged in learning, so caution should be exercised when applying the insights to prospective mature students.
- There is a lack of published work focused on understanding the impact of efforts to widen participation among mature learners; the existing literature focuses on understanding and improving the post-entry experience for this group.
- However, there is some limited evidence that transition programmes and information, advice and guidance interventions may be helpful in giving mature students the information and guidance necessary to navigate the unfamiliar world of higher education (HE).
- The findings of this review point to some major themes which can be used to inform future research on how best to attract and support mature students, relating to affirmation, belonging and identity; and affordable, flexible programme offers.
- Mature learners can face many different kinds of challenges related to identity and belonging in HE institutions – beyond age, class, parenthood status, and 'worker' vs. 'learner' identity. These may serve to set a mature student apart from the 'typical' 18 year old undergraduate entrant and impede their entry and success in HE. There are avenues for research into how HE providers that want to recruit and retain mature students can focus on enhancing a sense of belonging and confidence in these learners.
- A key part of increasing HE uptake among mature learners is to provide programme offers that meet this group's needs. Positive approaches to supporting mature learners may include financial support, flexible scheduling and support for those with caring responsibilities.
- Further research is needed into what types of messages are likely to attract mature students to HE and the relative weight they place on the factors highlighted above when considering higher education options.



1. METHODOLOGY

1.1 Research questions and objectives

The goal of this evidence review was to understand evidence around supporting HE access and student success² for mature learners, with a view to informing future research on this topic.

The objectives were:

- To conduct a literature review on the effectiveness of interventions designed to improve HE access and student success for mature learners. It should be noted that we define 'intervention' as any activity, programme or policy designed to support students.
- To identify the strength of evidence, size of impact and indicative cost of interventions, as well as the remaining evidence gaps.
- To consider quantitative, qualitative and mixed-methods evidence, with a particular focus on causal evidence where possible. With evidence classified according to three distinct types of evaluation, as per the Office for Students' standards of evidence.³

1.2 Scope of the literature and inclusion/exclusion criteria

The inclusion and exclusion criteria were established before the search process and developed to focus on the characteristics of interest in terms of population, interventions, outcomes, study design and time frame. The full inclusion and exclusion criteria are reported in the Appendix. It is important to note that, while we included studies relating to 'mature learners', there is no single definition of this group which is used consistently across the literature; therefore, we focus on studies referring to student groups considered non-traditional due to their age at time of entry into higher education.

The initial phase of the search was conducted using Google Scholar and Google Search to capture peer-reviewed articles and grey literature. Searches were done initially by title only, filtering for studies that were performed after 2012 in order to account for the student finance reforms that occurred that year and had major impact on enrolment of mature students. The search criteria are set out in Table 2 of the Appendix. After a set of searches in Google Scholar, searches were then done in relevant academic journals such as the *Journal of Adult and Continuing Education*. Lastly, Google Searches were done to check for relevant webpages and grey literature. Snowballing techniques were used to identify further studies. The overall number of studies collated on this basis was 59.

Secondly, we reviewed abstracts and applied inclusion and exclusion criteria to further filter the studies. The final number of studies included after filtering was 16.

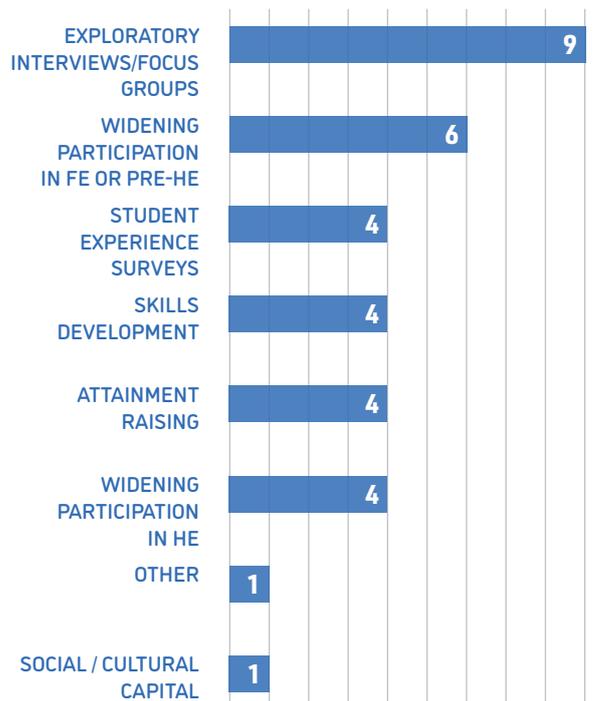
A database was developed to summarise each source based on the aim of the research and the outcomes considered. After the sources were selected, they were categorised according to: the year of publication; type of evidence, provenance, methodology, study aim, type of intervention, and strength of evidence. This allowed us to identify any patterns across evidence sources in terms of type of research, methodology used, and research findings, as well as to identify potential evidence gaps.

2. OVERVIEW OF THE LITERATURE

One way to look at the breadth of the literature is to examine the focus of the research – the outcomes that the studies intended to promote (plus two categories to cover descriptive research in which there was no outcome). The total number of aims we identified is higher than the total number of articles because some articles were classified as having multiple aims.

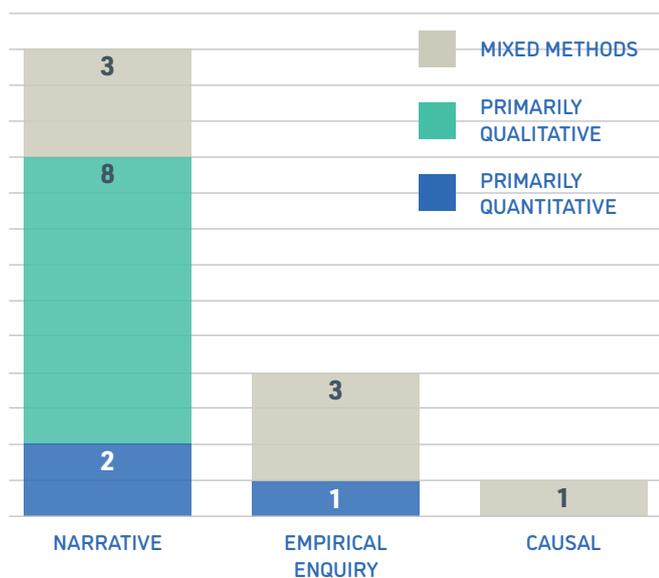
The biggest category which emerged was studies focused on the educational experience of mature learners in a descriptive manner without staging or evaluating an intervention (9). The next biggest category contained studies looking at widening participation for further education (FE) and pre-HE (such as Access courses), reflecting the major role these institutions and programmes play in adult education and preparing mature learners for university study. The remaining distribution of aims are split between studies that include large-scale surveys on the student experience, skills development, and attainment raising.

Figure 1: Purposes of research reviewed



In terms of evidence types, the vast majority of studies in this review qualify as 'narrative', with two 'empirical inquiries' and one 'causal' study (see Figure 2). Most studies use qualitative methodologies, especially open-ended interviews and focus groups.

Figure 2: Methodologies used



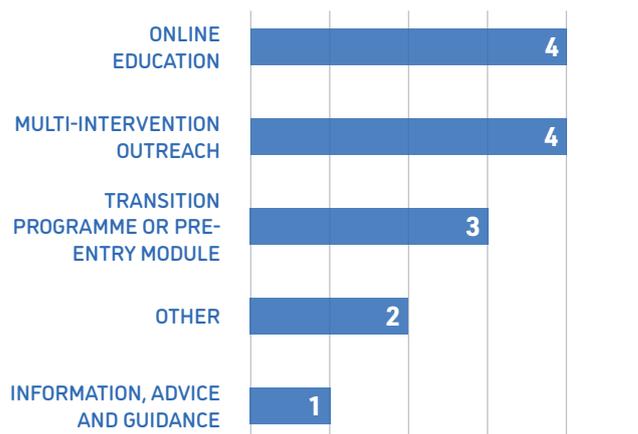
As will be discussed later in the review, there is a serious dearth of rigorously evaluated studies of any kind relating to mature learners. All studies collected (with three exceptions) qualify only as 'weak evidence' according to the OfS standards. Additionally, there is very little published work regarding widening participation defined as efforts to improve enrolment rates among mature learners.

Lastly, we have broken down the studies by the type of intervention tested, excluding exploratory and descriptive research that did not test any intervention. Some studies were coded for multiple intervention types. There are five intervention types relevant in this review:

- **Information, advice, and guidance (IAG)** – IAG refers to interventions where people receive information and guidance to help them make decisions about HE and FE.
- **Transition programme or pre-entry module** – Interventions focused on programming that precedes or aims to help a student transition into a full HE course such as a foundation programme or access course.
- **Online education** – Interventions focused on testing online and remote learning tools for mature students.
- **Multi-intervention outreach** – Interventions that combine multiple components.
- **Other** – Interventions that don't fit in the above categories.

Figure 3 gives the frequency with which these interventions appear in the literature surveyed.

Figure 3: Types of intervention in literature



3. ANALYSIS OF INDIVIDUAL INTERVENTIONS

In this section we review the studies that evaluate the effectiveness of interventions to support HE access and on-course success for mature students:

3.1 Transition programmes and pre-entry modules

Transition programmes, pre-entry modules, and foundation years appear to be common tools for preparing mature learners for the academic expectations and practices of the HE environment, as well as providing a path to HE for mature learners without qualifications. Several of these interventions are presented as case studies in Butcher et al (2016) a collection of outreach projects for mature learners commissioned by the Office for Fair Access (OFFA) and the Open University (OU) (two of which have subsequently been published in longer form in Butcher et al 2019 and McLellan et al 2016).

Transition interventions focus on helping mature students catch-up on certain academic skills they may have missed in time away from education. The impact of transition programmes and other pre-entry interventions appear positive for mature learners, especially when delivered in a flexible manner that helps balance study with other responsibilities. However, a lack of good evaluation of the attainment of mature learners once they have started their 'main' programme of study in some of these studies makes it hard to understand the true impact. The main downside of this intervention type is that these programmes tend to be fairly resource-intensive to run.

Butcher et al 2018 (also Butcher et al 2019, 9-16) falls in the former category of academically-focused transition interventions, aiming to teach maths skills necessary for undergraduate programmes for Science, Technology, Engineering, and Mathematics (STEM) subjects at the Open University. The programme was evaluated through written surveys of 2,400 participants, as well as telephone interviews with 11 students during the access module and again once they had enrolled onto the STEM degree. Students reported enhanced confidence and improved maths knowledge. The authors report a positive side-effect of increasing learner confidence with remote learning and self-efficacy more generally. However, there was no evaluation to see whether the access module had any impact of the future grades and attainment of participants once they had started the STEM degree, leaving it unclear whether the access module had an impact on further progression.

Another case study profiled in Butcher et al (2016, 22) aimed to assess the Higher Education Introductory Studies (HEIS) transition programmes at Birkbeck, University of London. The HEIS provides a certificate for students without A-level qualifications, which can be used to apply for further study at universities. Enrolment and progression statistics for the HEIS from 2008 to 2015 suggests it does not usually lead to further attainment for the majority of participants – it was found that typically only about third of participants would progress to some form of further study. In addition, it found that after the 2012 funding changes the number of students enrolling on HEIS declined dramatically.

There is also a small interview-based evaluation of a University of Bristol foundation year in Humanities (also in McLellan et al 2016) that teaches both preparatory modules in humanities subjects and taster courses run collaboratively with community organisations. Although yearly intakes were small, the programme saw 90% of participating students progress to HE. A total of 11 students in the programme were interviewed and reported that the experience is instructional and affirming for them, but that the change in peer groups in the transition from the foundation year to main undergraduate study caused some challenges. The social disconnect between younger and older students is a major theme many of the exploratory studies outlined in Section 4 of this review.

3.2 Multi-intervention outreach

Another case study mentioned in Butcher et al (2016, 30) comes from University of Leeds and evaluated outreach programmes for adult learners. Activities in the programme included information, open taster days, and evening transition programmes. The study tracked participants' progression to subsequent Leeds or other HE provision and found students participating in higher-intensity and multiple outreach activities were more likely to progress, though this may speak to a selection bias phenomenon in which those most inclined to enrol tended to be involved in the higher-intensity outreach. In qualitative interviews, students reported that they valued the opportunity to connect with other mature students and encouragement from outreach staff and tutors.

3.3 Online education

Given that mature students are more likely to have career and caring-related responsibilities, there has been an emphasis on flexible online teaching provision as a way of enabling them to pursue higher education. Online learning technologies evolve rapidly – both of these studies are now somewhat dated in terms of technology.

An Australian study (Lambrinidis 2014, 257-267) focused on a pre-university programme aimed at preparing mature students for HE. The e-learning tools used in the programme were evaluated with surveys and interviews. This feedback indicated a preference for synchronous online tutorials in which students could interact with others over video clips of lectures. However, participation rates in the online tutorials were much lower than those on pre-recorded lecture clips, possibly due to them being scheduled at unsuitable times.

A study focusing on online education at a university in Spain piloted a gamified e-learning activity for mature distance learners in a computer science programme (Mora et al, 2016). The intervention was evaluated through a post-hoc questionnaire (in which most respondents reported positive experiences with the activity) and analysis of participation rates over time. However, because the activity was voluntary, there was no comparison with another group of students who didn't take part which would allow us to understand whether participation had any positive impact on attainment or grades.

3.4 Other interventions

The OFFA/OU (in Butcher et al 2016, see page 10 of this review) collection also offers a case study with an IAG intervention developed by the Open University. This project consisted of a 'go-to' website for adults to explore academic and vocational education options (featuring among other things, an online quiz that helped match someone's qualifications and needs to existing programmes) and short free online courses providing learners with a taste of some popular subjects for mature students. The intervention was evaluated with a small pilot group, which Butcher et al (2015) report provided positive feedback.

IAG also featured in an interview-based pilot evaluation of an access programme (Fowle 2018, 90) focused on the most disadvantaged socio-economic groups who received a full fee waiver for the Access program. The twelve interview participants reported that the 'catalyst propelling them from realisation to action [to enrolling in HE] was the support they received from several information sources that helped them to decide on the best pathway for them'. In this context IAG came from institutions, but also from personal relationships and support networks.

A 2014 report from the Department for Education, in partnership with the Behavioural Insights Team, conducted 23 trials focused on literacy and numeracy skills for British adults (Hume et al 2019). The trials were not explicitly HE-focused, but offer causal evidence of unique 'nudge' behavioural interventions targeted at adult learners and conducted with employers and in 'community settings' (teaching offered through community centres). Trials conducted in FE setting yielded some positive results: a values affirmation intervention (an exercise in which learners reflected on their values) and a peer study supporter intervention had a significant positive impact on pass rates. However, trials encouraging people to sign up for various trainings in workplaces did not yield significant increases in take-up. In community settings, a messaging intervention emphasizing the ease of taking the training and interventions where learners were 'buddied up' had positive impacts on enrolment and attendance respectively.

4. ANALYSIS OF BARRIERS, EXPERIENCES, AND DESCRIPTIVE RESEARCH

The majority of literature on mature students is descriptive and exploratory research that aims to study the experiences of mature students in an open-ended manner.

Because the methodology of most of these studies is very similar (interviews and focus groups), and because most of them involve a very small number of students, this section is arranged around common themes that emerge across the studies. Most of these studies rely on interview group sizes below twenty participants (except Busher et al 2014, where 365 respondents were surveyed through a questionnaire, and Bovill et al where 126 responded to a short questionnaire) and therefore cannot be considered representative.

4.1 Age disconnect and stigma

A recurring theme is that mature students sometimes struggle to 'fit in' in university environments where they are older than the vast majority of students. Several students reported feelings of holding back in seminar environments and lecture Q&As for fear of being seen as a so-called 'over-enthusiastic mature student' by younger peers (Mallman & Lee, 2014, Bennun 2015, 18), suggesting the psychological phenomenon of 'stereotype threat' (Spencer et al 2016, 416) in which members of stigmatised groups control their behaviour out of fear of confirming a negative stereotype about their group. Respondents sometimes struggled to make social connections due to age differences with peers and their own lack of presence on campus due to work and other responsibilities. There is also often a disconnect between the needs of younger students – who often focus on the social aspects of university as much as the academic – and mature learners who tend to have a more academic and career-related focus (Chapman 2013, 44).

Conversely, studies that look at the experiences of students in foundation and access courses (Busher et al 2014, 77, Busher and James 2019, Elliott 2015, 77) note that the smaller and more homogenous cohorts of these courses in which most students were mature and 'in the same boat' fare better in this respect. Entering HE as part of a group of similarly-situated mature learners helps enhance a sense of community and confidence among access and foundation course students.

This finding suggests that the creation of environments where students can connect with others in the same situation as them may be helpful in attracting and retaining mature learners. A smaller-scale re-creation of this experience in the form of mature student socials and meet and greets or buddy schemes throughout the year may be one way to enhance this needed social solidarity and support.

4.2 Learner identity and confidence

Many mature learners returned to HE later in life because of negative experiences in secondary education, which in many cases led to a feeling that higher education was something they could not achieve, and that learning was not for them (James et al 2015, 10, Johnson 2018, 39, Fowle 2018, 97, Hume et al 2019, 19). This issue is particularly compounded in the case of students from working class backgrounds, who are less likely to receive encouragement to attend HE from their families and communities (Burnell 2015, 7, Elliott 2015, 75). As a result, mature learners often report feeling anxious before starting their studies and are concerned that they will not be able to keep up.

Chapman's study (2014, 114) uses the 'impostor syndrome' concept – the sensation of feeling that one is a fraud in their current position and fearing being exposed as not fitting in – to explore the experiences of mature students in their first year. The author reports that their interviewees relied on assignment feedback, particularly the first piece of feedback, for affirmation of both their academic abilities and sense of belonging.

Students who overcome these challenges gain confidence in themselves as learners (Elliot 2018, 77, Butcher 2020, 32), though it is important to be mindful that these students may be more likely to be willing to be interviewed than those who dropped out or failed programmes.

4.3 Balancing university and other commitments

The last barrier for mature students is that of balancing university study with other commitments. This is especially challenging for part-time mature learners enrolling at HE institutions that do not focus on mature students, where they encounter administrative structures in which full-time, younger students are the default (Butcher 2020, 18, Bennun 2015, 18).

This leads to issues like poorly timed lectures and seminars, inflexible timetabling, and a lack of tailored support which can make it challenging for mature students to succeed. A focus group study of mature students at the University of Bristol echoed this experience, with mature student parents expressing a feeling that university staff sometimes lacked empathy or understanding for their caring responsibilities (Bennun 2015, 10, 18).



5. CONCLUSION

This literature review has provided an overview of the (Butcher et al 2015) academic and grey literature on mature students published since 2012, looking both at studies that tested interventions designed to support HE access and on-course success for mature students, and studies that conducted descriptive research into the experiences and barriers faced by mature students in UK HE and FE.

We found that the literature on this topic is limited and interventions are typically not rigorously evaluated. Likewise, much of the descriptive research on this topic relies on interviews with self-selecting groups of students who were already engaged in learning, so caution should be exercised when applying the insights to those who aren't engaged in the research process.

The decline in mature student numbers and the small body of existing research relating to this student group suggests the post-2012 funding changes in England have made HE less attractive for mature students. Where success has occurred, it appears to be happening more often in environments tailored to the unique needs of mature learners, like HE access courses, FE partnerships, and institutions like the Open University and Birkbeck where flexible, remote, and night-time teaching is common.

In terms of what works for widening participation for mature students, there is some limited evidence that transition programmes and IAG interventions may be helpful in giving mature students the information and guidance necessary to navigate the unfamiliar world of higher education.

The findings of this review point to some major themes which can be used to inform future research on how best to support mature students:

5.1 Affirmation, belonging, and identity

Belonging and identity have been important concepts in widening participation research in the past and are no less relevant in this body of literature. These studies suggest mature learners, being a diverse group, can face many different kinds of challenges related to identity and belonging in HE institutions – beyond the obvious ones of age, class, parenthood status, and 'worker' vs. 'learner' identity. These may serve to set a mature student apart from the 'typical' 18 year old undergraduate entrant and impede their entry and success in HE. There are avenues for research into how HE providers that want to recruit and retain mature students can focus on enhancing a sense of belonging and confidence in these learners.

5.2 Affordable, flexible programme offers

A key part of increasing HE uptake among mature learners is to provide programme offers that meet this group's needs. It is emphasised throughout this literature that the disconnect between these needs and the typical HE programme offer can be a barrier to mature student recruitment and success. Positive approaches to supporting mature learners may include, not only financial support, but also other institutional changes like flexible scheduling and support for those with caring responsibilities. There could be more research into the impact of these benefits for mature students or how institutions can utilise them to recruit students.

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7. APPENDIX: INCLUSION, EXCLUSION AND SEARCH CRITERIA

Table 1: Inclusion and exclusion criteria

Criteria	Inclusion	Exclusion
Population	'mature learners' – student groups considered non-traditional due to age at time of entry into HE (different definitions vary on specificity of actual age).	Research on students of traditional HE-entry age (18/19 at entry).
Interventions	<p>Interventions explicitly designed to widen participation for mature learners in HE or FE contexts where HE-level qualifications are studied.</p> <p>Interventions explicitly designed to support on-course success for mature learners in HE or FE contexts where HE-level qualifications are studied.</p> <p>Interventions implemented outside the UK that are replicable/relevant in UK context.</p> <p>Research outlining barriers to HE participation for mature learners.</p>	<p>Interventions not designed to widen participation and/or support on-course success for mature students.</p> <p>Non-UK interventions with no replicability/relevance in UK context.</p>
Study design (OfS Type 1) ⁴	<p>Include studies that show:</p> <ul style="list-style-type: none"> • Coherent strategy • Approach/activities backed by evidence from literature or other evaluations • Shared understanding of processes • Reason for activity • Clear conception of why the changes sought to make are important • Programme reviews 	<p>Exclude studies that show:</p> <ul style="list-style-type: none"> • Disjointed activities • No rationale for developing approach and activities • Model of change that is not shared • Ad-hoc activities • No understanding of needs of target groups • No review or evaluation
Study design (OfS Type 2)	<p>Include studies that show:</p> <ul style="list-style-type: none"> • Clear aim of what it is sought to achieve • Selected indicators of impact • Use of quantitative or qualitative data or both • Pre/post data (minimum two points in time) • Analysis competently undertaken • Sharing of results and review of activity 	<p>Exclude studies that show:</p> <ul style="list-style-type: none"> • Aims developed after activity • No concept of measuring success • Information that is not systematically collected • No pre/post data • Data not related to the intervention • Results not used to inform decisions
Study design (OfS Type 3)	<p>Include studies that:</p> <p>Have a treatment and a control group</p> <p>Use an experimental or quasi-experimental design</p> <p>Consider selection bias and try to avoid it</p>	<p>Exclude studies that:</p> <p>Do not have a control group</p> <p>Use groups that are not comparable</p> <p>Have selection bias in control groups</p>

Table 2: Search criteria

Search number	Search title	Number of results
1a	allintitle: ("mature learners" OR "mature students" OR "non-traditional students" OR "adult learners") ("higher education" OR "university" OR "degree" OR "further education") (participation)	17
1b	allintitle: ("mature learners" OR "mature students" OR "non-traditional students" OR "adult learners" OR "part time" OR "part-time") ("higher education" OR "university" OR "degree" OR "further education") (access)	27
1c	allintitle: ("mature learners" OR "mature students" OR "non-traditional students" OR "adult learners" OR "part time" OR "part-time") ("higher education" OR "university" OR "degree" OR "further education") (admission)	3
1d	allintitle: ("mature learners" OR "mature students" OR "non-traditional students" OR "adult learners" OR "part time" OR "part-time") ("higher education" OR "university" OR "degree" OR "further education") (enrolment)	2
1e	allintitle: ("mature learners" OR "mature students" OR "non-traditional students" OR "adult learners" OR "part time" OR "part-time") ("higher education" OR "university" OR "degree" OR "further education") (awareness)	3
1f	allintitle: ("mature learners" OR "mature students" OR "non-traditional students" OR "adult learners" OR "part time" OR "part-time") ("higher education" OR "university" OR "degree" OR "further education") (attainment)	1
1g	allintitle: ("mature learners" OR "mature students" OR "non-traditional students" OR "adult learners" OR "part time" OR "part-time") ("higher education" OR "university" OR "degree" OR "further education") (engagement)	7
1h	allintitle: ("mature learners" OR "mature students" OR "non-traditional students" OR "adult learners" OR "part time" OR "part-time") ("higher education" OR "university" OR "degree" OR "further education") (outreach)	4
2	allintitle: ("mature learners" OR "mature students" OR "non-traditional students" OR "adult learners" OR "part time" OR "part-time") AND ("higher education" OR "university" OR "degree" OR "further education") ("widening participation")	6
3	allintitle: ("mature learners" OR "mature students" OR "non-traditional students" OR "adult learners") (random OR "controlled trial" OR experiment OR "quasi-experiment" OR causal OR matching OR RCT)	0
4	allintitle: "Open University" OR "Birkbeck" AND "mature learners" OR "mature students" OR "non-traditional students" OR "adult learners"	5
5	allintitle: "Open University" OR "Birkbeck" AND "mature learners" OR "mature students" OR "non-traditional students" OR "adult learners"	736

ENDNOTES

- 1 The OfS Standards of Evidence have been developed to 'help providers to understand what constitutes high quality evidence and guide the selection of evaluation methods to generate evidence of impact.' The standards group evidence into [three non-hierarchical categories](#) (narrative, empirical inquiry, and causal), each divided into [three hierarchical categories](#) denoting the strength of evidence (weak, developing, and best).
- 2 Where 'student success' is defined as any positive post-entry outcome, e.g. retention on-course, degree attainment, wellbeing.
- 3 The OfS's Standards of Evidence can be accessed at: <https://www.officeforstudents.org.uk/publications/standards-of-evidence-and-evaluating-impact-of-outreach/>
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TASO was set up by a consortium of King's College London, Nottingham Trent University and the Behavioural Insights Team. It is funded by the Office for Students and is an affiliate What Works Centre, and part of the UK Government's What Works Movement.