The Impact of Academic Skills Development on Student Outcomes in Higher Education – Literature Review

**Author:** Dr Joris de Henau, Evaluation Officer

**Date:** October 2024

Contents

[Introduction 1](#_Toc1649767116)

[Impact of Academic Skills on Student Outcomes and Success 2](#_Toc1278428064)

[Impact of Academic Skills Development on Student Wellbeing 5](#_Toc2014078576)

[Impact of Academic Skills on Student Mental Health 6](#_Toc100847826)

[Impact of Academic Skills Development for Disadvantaged Students 8](#_Toc620586379)

[Conclusions 10](#_Toc2105223039)

[References 12](#_Toc284881637)

# Introduction

Mastering academic skills is vital for student achievement, wellbeing and success in higher education. Academic skills encompass a wide range of abilities essential for effectively engaging with disciplinary content, constructing meaning, thinking critically and communicating ideas (Li, 2022; Smith & Baik, 2021). These skills include information literacy, critical analysis, problem-solving, academic writing and metacognitive strategies for self-regulated learning (Hewitt & Stubbs, 2017; Barrable et al., 2018). Developing such skills enables students to deeply understand subject matter, actively participate in scholarly communities and realise their academic potential.

Beyond academic performance, research suggests that academic skills development plays a crucial role in student **wellbeing** and **mental health**. The transition to higher education can be challenging, with students often struggling to manage heavy workloads, meet academic expectations and adapt to new learning environments (Lister et al., 2022). Lack of academic preparedness and difficulties with core study skills have been identified as key factors contributing to student anxiety, stress and depression (Hewitt & Stubbs, 2017; Barrable et al., 2018). This highlights the importance of providing academic skills support and interventions to promote student resilience and psychological wellbeing.

Furthermore, academic literacies have been shown to have a disproportionate impact on the success and inclusion of historically **disadvantaged student populations** (Li, 2022; Eather et al., 2022). Students from underrepresented backgrounds often face additional barriers in academia, including lack of familiarity with disciplinary conventions, limited access to learning resources and systemic marginalisation (Reyes et al., 2022). Developing academic skills and literacies can serve as a powerful tool for equity, enabling diverse learners to navigate the hidden curriculum, make their voices heard and succeed in an environment not traditionally designed for them (Li, 2022).

The terms "academic skills", "study skills", "English for Academic Purposes (EAP)", and "academic literacies" are often used in overlapping ways, but have distinct histories and emphases that are important to clarify. "Study skills" and "academic skills" tend to refer to **general capabilities** needed for success in higher education, such as note-taking, time management, critical reading, and academic writing. These terms imply a set of generic, transferable skills that can be taught separately from disciplinary content. However, this skills-based approach has been critiqued for assuming these capabilities can be easily transferred across different academic contexts.

For the purposes of this review, we use "**academic skills development**" as an umbrella **term to encompass interventions aimed at enhancing students' capabilities for academic study**, whether focused on general study strategies, English language proficiency, or discipline-specific literacies. However, we recognise debates around these terms and aim to be sensitive to different theoretical orientations. Our broad conception aligns with Blaj-Ward's (2022) definition of "academic literacies provision" as **learning activities** designed to facilitate fuller academic experiences for students, increasing awareness of academic communication while developing language proficiency. Like Blaj-Ward, we see value in drawing on multiple strands of scholarship - including applied linguistics, language learning pedagogy, and higher education research - to inform effective academic support that is responsive to diverse student needs and aspirations.

The purpose of this literature review then is to synthesise the evidence on how building students' academic skills impacts their **wellbeing**, **mental health**, **academic outcomes** and **success**, with a particular focus on the benefits for historically disadvantaged students. By examining systematic reviews and meta-analyses across educational and psychological literature, this review aims to provide a comprehensive understanding of the role of academic skills development in student thriving and educational equity. The insights gathered can inform evidence-based interventions and inclusive teaching practices to better support all students in reaching their full potential in higher education.

# Impact of Academic Skills on Student Outcomes and Success

The impact of academic skills development on student learning outcomes and success is firmly established in the literature. The seminal meta-analysis by Hattie, Biggs and Purdie (1996) provides strong evidence for the effectiveness of study skills interventions on student performance. Their analysis of 51 studies found that training in task-related skills, self-management of learning and affective components such as motivation and self-concept had significant positive effects on student achievement. Notably, they discovered that contextualised study skills training within specific subject domains was most impactful, leading to improved knowledge acquisition and academic performance. This finding supports the situated cognition perspective, emphasising the importance of **embedding study skills** within disciplinary contexts and promoting metacognitive awareness.

Building on this foundational work, more recent systematic reviews and meta-analyses have further confirmed the link between academic skills development and student success. Smith and Baik's (2021) synthesis of high-impact teaching practices in higher education identified **explicit instruction in disciplinary skills** as a key factor in enhancing student outcomes. They found that directly teaching critical analysis, problem-solving and communication skills within subject content improved students' deep understanding, academic performance and ability to transfer learning to new contexts. By integrating academic skills development into the curriculum, educators can scaffold students' acquisition of disciplinary ways of thinking and practicing, leading to improved achievement.

Similarly, Li's (2022) systematic review highlighted the crucial role of academic literacies in facilitating students' disciplinary knowledge, higher order thinking skills and cognitive growth. Li argues that academic literacies encompass more than just discrete skills; they involve developing students' capacities to **construct** and **communicate meaning** within disciplinary communities. By engaging students in authentic literacy practices and genre-based instruction, educators can help them master the conventions, discourses and epistemologies of their fields. This mastery enables students to actively participate in knowledge creation and navigate the complexities of academia, resulting in deeper learning and success. As Blaj-Ward (2022) notes, the linguistic repertoire required for success in a university context is broader than academic discourse alone, suggesting that academic literacies provision should be “everyone's business” and not solely the responsibility of English language specialists.

The impact of academic skills development on student outcomes is further evidenced by studies examining specific interventions and programmes. For example, Hattie and Purdie's (1996) meta-analysis found that training in mnemonic techniques and organising conceptual knowledge had significant effects on learning outcomes, with moderate to large effect sizes. They also identified self-regulation strategies, such as goal setting and self-monitoring, as highly effective in improving academic performance. These findings suggest that equipping students with **cognitive** and **metacognitive strategies** can substantially enhance their learning and achievement. However, as Blaj-Ward (2022) points out, measuring the precise impact of academic literacies provision on student outcomes can be challenging due to the wide array of factors contributing to student success. Nonetheless, Blaj-Ward emphasises the strong links between academic skills and academic achievement, advocating for the integration of **evaluative practices** into academic literacies provision to generate a robust basis for decision-making and resource allocation.

Moreover, research has shown that academic support programmes embedding specific skills and literacies can have marked benefits for student success. Eather, Mavilidi, Sharp and Parkes' (2022) systematic review found that academic support initiatives focused on writing, study strategies and discipline-specific literacies significantly increased student retention, satisfaction and academic performance. These programmes were particularly effective for students from disadvantaged backgrounds, highlighting the potential of academic skills interventions to promote **equity** and **inclusion**. Loddick and Coulson’s (2020) longitudinal study (over 16,000 students and 175,000 assessments) at the University of Northampton found that those who attended at least one Learning Development one-to-one tutorial saw an average increase of one to two sub-grades in their assessments compared to those who did not use this support, demonstrating the positive impact of academic skills interventions on student attainment. A literature review by Austen, Hodgson, Dickinson, et al. (2021) for Advance HE and building on a previous review by Webb, Lynne and Cotton (2017) found significant impact of academic skills support on student outcomes.

The cumulative evidence from these meta-analyses, systematic reviews and studies provides a **compelling rationale** for investing in academic skills development initiatives in higher education. By **integrating explicit instruction** in **disciplinary literacies**, **cognitive strategies** and **self-regulated learning** into **curricula** and **support programmes,** institutions can significantly **enhance student learning outcomes** and **success**. Further research should explore the most effective designs and pedagogical approaches for embedding academic skills development across disciplines and contexts. Additionally, studies examining the long-term impacts of academic skills interventions on student achievement, employability and lifelong learning would provide valuable insights. Nonetheless, the existing literature clearly demonstrates the **transformative potential of academic skills** development for supporting student thriving and success in higher education.

# Impact of Academic Skills Development on Student Wellbeing

The impact of academic skills development on student wellbeing is increasingly recognised as a crucial consideration in higher education. Wellbeing encompasses more than just the absence of mental illness, focusing on positive psychological functioning and the realisation of one’s potential. A growing body of research has demonstrated that fostering students' academic skills not only enhances their performance but also **promotes** their overall **wellbeing** and **flourishing**.

The systematic review by Worsley, Pennington and Corcoran (2022) provides compelling evidence for the effectiveness of academic skills interventions in improving student wellbeing. Their analysis of **setting-based interventions** found that programmes focused on enhancing learning and teaching practices significantly improved students' psychological outcomes. By **integrating skill-building activities** and **supervised practice** in techniques such as cognitive-behavioural strategies, mindfulness and stress management into the curriculum, these interventions equipped students with tools to navigate the challenges of higher education. The review highlights the potential of embedding evidence-based wellbeing practices within the academic environment to support student flourishing.

The connection between academic skills development and student wellbeing is further illustrated by Frith, Maitland and Lamont's (2022) study on the impact of **departmental academic skills provision**. Their research found that academic skills classes not only improved students' performance but also enhanced their **sense of belonging** and **reduced anxiety**. By providing structured support and guidance in key academic competencies, these classes offered a vital anchor for students, particularly those from diverse backgrounds. The study underscores the role of academic skills development in fostering a supportive learning community and promoting students' social and emotional adjustment to higher education.

Moreover, the literature suggests that academic skills development can serve as a protective factor against the stressors and demands of university life. Lister et al. (2022) emphasise the importance of proactive, **holistic approaches** to embedding wellbeing support within the curriculum. By equipping students with effective strategies for managing their learning, such as time management, goal-setting and self-regulation, academic skills interventions can mitigate the psychological distress associated with academic pressures and promote **positive psychological functioning**.

The impact of academic skills development on student wellbeing is particularly salient for those navigating the **transition to higher education**. Hewitt and Stubbs (2017) found that law students reported significant anxiety and stress when acquiring academic competencies without adequate formal support. Similarly, Barrable, Papadatou-Pastou and Tzotzoli (2018) identified not possessing good skills in time management, motivation and memory techniques as key contributors to lower levels of student wellbeing. These findings underscore the critical role of **timely** and **accessible academic skills** support in promoting student resilience and positive psychological functioning during the challenging transitions in the first year of university.

The evidence from these studies establishes that academic skills development is not merely an academic endeavour but a **vital component** of **student wellbeing**. By embedding evidence-based skills-building practices within the curriculum and providing academic skills support, institutions like Oxford can further develop learning environments that nurture both academic success and student wellbeing. Future research should explore the most effective approaches for integrating wellbeing support within academic skills interventions and assess the **long-term impacts** on student outcomes. Nonetheless, the existing literature makes a compelling case for prioritising of academic skills development as a key strategy for promoting student flourishing in higher education.

# Impact of Academic Skills on Student Mental Health

While wellbeing focuses on positive psychological functioning, mental health encompasses both the presence of positive states and the absence of mental illness or distress. The impact of academic skills on student mental health has been a topic of growing concern in higher education research. There is mounting evidence suggesting that **possessing key academic skills** can contribute to **alleviate student distress**, **anxiety** and **depression** while also **promoting positive mental health**.

The systematic review by John et al. (2018) on peer support programmes provides a useful starting point for examining this connection. Although their analysis found inconclusive evidence for the impact of peer support on university student mental wellbeing, the authors note the need for more interventions that address specific academic challenges and skills gaps to support mental health.

Lister et al. (2022) investigate the link between academic skills and mental health, highlighting the role of heavy workloads and lack of discipline-specific study competencies in triggering student anxiety, stress and depression. Their research underscores the psychological toll of struggling to meet academic demands without adequate skills and strategies. Students who lack effective time management, information literacy and self-regulated learning abilities may find themselves overwhelmed by coursework, leading to heightened distress and burnout. Lister et al. argue for the **importance of embedding** **mental health support** within the curriculum, equipping students with the academic tools they need to thrive both academically and psychologically.

The impact of having good academic skills on student mental health is further evidenced by Hewitt and Stubbs' (2017) study on the experiences of law students. Their findings reveal significant levels of anxiety and stress among students grappling with the demands of legal education without sufficient formal support in acquiring critical thinking, argumentation and writing skills. The authors describe a "sink or swim" culture in which students are expected to master complex academic competencies independently, leading to heightened psychological distress. This study highlights the need for **proactive, discipline-specific academic skills interventions** to support student mental health and prevent the negative mental health consequences of unaddressed skills gaps.

Barrable, Papadatou-Pastou and Tzotzoli (2018) provide additional insights into the specific academic skills that influence student mental health. Their research identifies developing time management, motivation and memory techniques as key contributors to reducing psychological distress and negative emotions. Students who struggle with procrastination, goal-setting and effective studying strategies may experience heightened anxiety and self-doubt, impacting their overall mental health. Barrable et al. emphasise the importance of **providing accessible**, **evidence-based resources** and **interventions** to support students in developing these critical academic competencies to protect against mental health challenges.

While the evidence linking a lack of academic skills development to student mental health is compelling, it is important to note the need for further research to fully understand the causal mechanisms at play. The **relationship** between **academic competencies** and **mental health** is likely **bidirectional** and influenced by a range of **individual**, **social** and **contextual factors**. However, the existing literature suggests that addressing academic skills gaps through discipline-specific interventions may be a promising avenue for both preventing mental health problems and promoting mental health in university students.

Institutions should consider integrating academic skills support with mental health resources, creating **holistic programmes** that address both the **cognitive** and **affective** dimensions of learning. By providing students with the tools and strategies they need to navigate the demands of higher education, universities can create learning environments that foster both academic success and psychological resilience. Future research should explore the most effective approaches for embedding mental health support within academic skills interventions, as well as the long-term impacts on student outcomes, wellbeing and mental health. Nonetheless, the evidence to date underscores the **critical role** of **academic skills development** in **promoting** student **mental health** and preventing the negative consequences of unaddressed skills issues.

# Impact of Academic Skills Development for Disadvantaged Students

The impact of academic skills development on historically disadvantaged students has been a focus of increasing attention in higher education research. A growing body of evidence suggests that academic literacies and study skills interventions can play a **crucial role** in **promoting equity**, **inclusion** and **success** for students from underrepresented backgrounds. Li's (2022) systematic review provides a comprehensive analysis of how academic literacy development affects marginalised students. The review highlights the ways in which academic literacies serve as tools for accessing disciplinary knowledge, constructing meaning and participating in scholarly discourse. For students who have been traditionally excluded from academia, **mastering** these **literacies** can be **transformative**, offering opportunities for engagement and success that were previously inaccessible.

Li's review also underscores the **sociocultural dimensions** of academic literacy development, connecting it to issues of power, identity and social justice. The author argues that academic literacies are not merely neutral skills but are deeply embedded in the values, epistemologies and cultural practices of academic disciplines. For historically disadvantaged students, developing these literacies can be a complex process of negotiating multiple identities and navigating unfamiliar cultural terrain. Li emphasises the importance of recognising the diverse linguistic and cultural resources that marginalised students bring to academia and creating **inclusive pedagogies** that validate and build upon these assets.

The impact of academic skills development for disadvantaged students is further evidenced by Reyes, Meneses and Melián's (2022) systematic review of interventions for online **learners with disabilities**. Their analysis found that accessibility and inclusive pedagogies were critical for promoting the participation and success of this underserved population. By providing customised academic skills support and accommodations, such as assistive technologies and alternative formats, institutions can level the playing field and ensure that students with disabilities have equitable opportunities to engage with course content and demonstrate their knowledge. The review highlights the importance of proactive, **student-centred approaches** to academic skills development that consider the diverse needs and challenges faced by disadvantaged learners.

Eather, Mavilidi, Sharp and Parkes' (2022) systematic review adds to the evidence base on the impact of academic skills development on historically underrepresented groups. Their analysis of academic support programmes found significant benefits for students from low-income, first-generation and minoritised backgrounds. These initiatives, which often included instruction in study strategies, writing skills and discipline-specific literacies, were associated with increased retention, academic performance and student satisfaction. The review suggests that providing **structured, inclusive support** for academic skills development can be a powerful tool for promoting equity and closing achievement gaps in higher education.

The literature also points to the importance of considering the intersectional identities and experiences of disadvantaged students when designing academic skills interventions. For example, first-generation students who are also from low-income or minority backgrounds may face multiple barriers to academic success, including financial constraints, cultural dissonance and lack of familial support (Palbusa & Gauvain, 2017). Academic skills programmes that address these multifaceted challenges through holistic, **culturally responsive approaches** have been shown to be particularly effective in promoting retention and success (Jehangir, 2010; Kim & Sax, 2014). Loddick and Coulson (2020) found that students from black ethnic backgrounds and those aged 25 years or below gained the most in terms of attainment compared to other ethnic groups and more mature students when accessing Learning Development tutorials, highlighting the **potential** of such interventions **to address awarding gaps**.

The evidence from these systematic reviews and studies makes a robust case for the transformative potential of academic skills development for historically disadvantaged students. By providing inclusive support for mastering academic literacies and study competencies, institutions can create more **equitable learning environments** that **empower diverse learners to thrive**. Future research should continue to investigate the most effective approaches for designing and implementing academic skills interventions that are responsive to the unique needs and strengths of underrepresented populations. Additionally, studies that examine the long-term impacts of these initiatives on student outcomes, social mobility and workforce success would provide valuable insights for policy and practice. Nonetheless, the existing literature clearly demonstrates the critical role of academic skills development in promoting educational equity and inclusion in higher education.

# Conclusions

The evidence presented in this literature review provides a compelling case for the **significant benefits** of **academic skills development** on student attainment, wellbeing, mental health, and equity in higher education. The systematic reviews and meta-analyses examined consistently demonstrate the positive impact of embedding academic literacies and study skills support within curricula and institutional practices.

In terms of student wellbeing, the research highlights the **effectiveness** of academic skills interventions in promoting **positive psychological functioning**, **resilience** and overall **flourishing**. By equipping students with strategies for managing the demands of higher education, such as time management, self-regulation and stress management, these initiatives can mitigate the psychological distress associated with academic challenges. Moreover, by fostering a **sense of belonging** and providing structured support, academic skills programmes can enhance students' social and emotional adjustment to university life.

The literature also underscores the critical role of academic skills development in supporting student mental health. Studies have identified possessing key academic competencies, such as information literacy, critical thinking and disciplinary writing, as significant contributors to alleviating student anxiety, depression and burnout. Discipline-specific interventions that address these skills gaps have been shown to **reduce psychological distress** and **promote** **mental wellbeing**. By integrating mental health support with academic skills development, institutions can create holistic programmes that nurture both cognitive and affective dimensions of learning.

Regarding student achievement and success, the evidence is clear and consistent. Meta-analyses and systematic reviews have demonstrated the significant **positive impact** of academic skills interventions on **learning outcomes, retention and academic performance**. By providing students with the tools and strategies to engage deeply with disciplinary content, think critically and communicate effectively, these initiatives can enhance knowledge acquisition, higher-order thinking and overall academic success. Notably, the research emphasises the importance of **embedding academic skills development** within specific disciplinary contexts and promoting metacognitive awareness to maximise the transfer of learning.

Finally, the literature highlights the **transformative potential** of academic skills development for promoting **educational equity** and **inclusion**. For historically disadvantaged students, mastering academic literacies can unlock opportunities for engagement, participation and success that were previously inaccessible. By providing culturally responsive support for developing academic competencies, institutions can create more inclusive learning environments that validate diverse ways of knowing and being. Moreover, by addressing the multifaceted barriers faced by underrepresented students, such as financial constraints and cultural dissonance, academic skills programmes can **promote retention, close achievement gaps** and **foster social mobility**.

Considering this robust evidence, it is crucial that higher education institutions, including the University of Oxford, invest in **holistic, embedded approaches** to **academic skills development**. This requires moving beyond isolated study skills workshops and toward systemic integration of academic literacies within curricula, teaching practices and support services. By adopting a **student-centred**, **discipline-specific approach** to academic skills development, institutions can **foster cognitive growth**, **psychological resilience** and **equitable outcomes** for all learners.

Furthermore, while the existing research provides a solid foundation, there is a need for **continued investigation** into the most effective strategies for designing, implementing and assessing academic skills interventions. Future studies should explore the **long-term impacts** of these initiatives on student outcomes, career success and lifelong learning. Additionally, research that examines the intersectional experiences of diverse student populations and the differential effects of academic skills development **across disciplines** and contexts would provide valuable **insights** for **policy** and **practice**.

The evidence presented in this review leaves little doubt about the promise of academic skills development for **enabling all students to thrive** and **reach their full potential in higher education**. Investing in comprehensive, equity-minded approaches to academic literacies, in institutions like Oxford, can create transformative learning experiences that empower students to succeed academically, professionally and personally. The benefits of academic skills development for student wellbeing, mental health, achievement and equity are clear – it is up to universities to prioritise this critical work and ensure that all students have the opportunity to flourish.

# References

* Abrami, PC, Bernard, RM, Borokhovski, E, Wade, A, Surkes, MA, Tamim, R., & Zhang, D., 'Instructional Interventions Affecting Critical Thinking Skills and Dispositions: A Stage 1 Meta-Analysis', Review of Educational Research, vol 78, no 4, 2008, pp 1102-1134. <https://doi.org/10.3102/0034654308326084>
* AlFaris, E et al, 'The relationship between study skills and depressive symptoms among medical residents', BMC Med Educ, vol 19, Art No 435, 2019, <https://doi.org/10.1186/s12909-019-1870-x>
* Austen, L et al, Access, retention, attainment and progression: an integrative review of demonstrable impact on student outcomes, AdvanceHE, 2021.
* Barrable, A, Papadatou-Pastou, M and Tzotzoli, P, 'Supporting mental health, wellbeing and study skills in higher education: An online intervention system', Int J Mental Health Syst, vol 12, art no 54, 2018, doi: <https://doi.org/10.1186/s13033-018-0233-z>
* Blaj-Ward, L, 'Institutional and Sector Perspectives on Impact and Quality of Academic Literacies Provision' in Academic Literacies Provision for International Students, Palgrave Macmillan, Cham, 2022. <https://doi.org/10.1007/978-3-031-11503-5_2>
* Smith, CD and Baik, C, 'High-impact teaching practices in higher education: a best evidence review', Studies in Higher Education, vol 46, no 8, 2021, pp 1696-1713. doi: <https://doi.org/10.1080/03075079.2019.1698539>
* Credé, M and Kuncel, NR, 'Study Habits, Skills, and Attitudes: The Third Pillar Supporting Collegiate Academic Performance', Perspect Psychol Sci, vol 3, no 6, 2008, pp 425-53. doi: <https://doi.org/10.1111/j.1745-6924.2008.00089.x>
* Eather, N et al, 'Programmes targeting student retention/success and satisfaction/experience in higher education: A systematic review', Journal of Higher Education Policy and Management, vol 44, no 3, 2022, pp 223-239. doi: <https://doi.org/10.1080/1360080X.2021.2021600>
* Fernandez, A et al, 'Setting-based interventions to promote mental health at the university: a systematic review', International Journal of Public Health, vol 61, no 7, 2016, pp 797–807. doi: <https://doi.org/10.1007/s00038-016-0846-4>
* Frith, L, Maitland, L and Lamont, J, 'The impact of departmental academic skills provision on students' wellbeing', Journal of Learning Development in Higher Education, no 25, 2022. doi: <https://doi.org/10.47408/jldhe.vi25.978>
* Hattie, J et al, 'Effects of Learning Skills Interventions on Student Learning: A Meta-Analysis', Review of Educational Research, vol 66, no 2, 1996, pp 99-136. doi: <https://doi.org/10.3102/00346543066002099>
* Hewitt, A and Stubbs, M, 'Supporting law students' skills development online–a strategy to improve skills and reduce student stress?', Res Learn Technol, vol 25, 2017, p 24. doi: 10.25304/rlt.v25.1786
* Jefferies, D et al, 'The importance of academic literacy for undergraduate nursing students and its relationship to future professional clinical practice: A systematic review', Nurse Educ Today, vol 60, 2018, pp 84-91. doi: <https://doi.org/10.1016/j.nedt.2017.09.020>
* John, NM et al, 'Impact of peer support on student mental wellbeing: a systematic review', MedEdPublish, vol 7, 2018, p 170. <https://doi.org/10.15694/mep.2018.0000170.1>
* Kartika, A, 'Study skills training: Is it an answer to the lack of college students' study skills?', International Journal of Learning, vol 14, no 9, 2007, pp 35-43.
* Larose, S and Roy, R, 'The role of prior academic performance and non-academic attributes in the prediction of the success of high-risk college students', Journal of College Student Development, vol 32, no 2, 1991, pp 171-177.
* Li, D, 'A review of academic literacy research development: from 2002 to 2019', Asian J Second Foreign Lang Educ, vol 7, 2022, p 5. <https://doi.org/10.1186/s40862-022-00130-z>
* Lister, K et al, 'Participatory digital approaches to embedding student wellbeing in higher education', Frontiers in Education, vol 7, 2022, p 924868. doi: <https://doi.org/10.3389/feduc.2022.924868>
* Loddick, A and Coulson, K, 'The impact of Learning Development tutorials on student attainment', Journal of Learning Development in Higher Education, no 17, 2020. doi: <https://doi.org/10.47408/jldhe.vi17.558>
* Metzner, B and Bean, JP, 'The estimation of a conceptual model for non-traditional undergraduate student attrition', Research in Higher Education, vol 27, no 1, 1987, pp 15-38.
* Pollard E, Vanderlayden J, Alexander K (IES) Borkin H, O’Mahony J (AdvanceHE), Student mental health and wellbeing. Insights from higher education providers and sector experts, June 2021. [Survey of HE providers student mental health (publishing.service.gov.uk)](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/996478/Survey_of_HE_Providers_Student_Mental_Health.pdf)
* Proctor, BE et al, 'Study skills profiles of normal-achieving and academically-struggling college student', Journal of College Student Development, vol 47, no 1, 2006, pp 37-51.
* Purdie, N and Hattie, J, 'The Relationship between Study Skills and Learning Outcomes: A Meta-Analysis', Australian Journal of Education, vol 43, no 1, 1999, pp 72-86. <https://doi.org/10.1177/000494419904300106>
* Reyes, JI, Meneses, J and Melián, E, 'A systematic review of academic interventions for students with disabilities in Online Higher Education', European Journal of Special Needs Education, vol 37, no 4, 2022, pp 569-586. doi: <https://doi.org/10.1080/08856257.2021.1911525>
* Robbins, SB et al, 'Do Psychosocial and Study Skill Factors Predict College Outcomes? A Meta-Analysis', Psychological Bulletin, vol 130, no 2, 2004, pp 261-288. <https://doi.org/10.1037/0033-2909.130.2.261>
* Schneider, M and Preckel, F, 'Variables associated with achievement in higher education: A systematic review of meta-analyses', Psychological Bulletin, vol 143, no 6, 2017, pp 565-600. <https://doi.org/10.1037/bul0000098>
* Urciuoli, JA and Bluestone, C, 'Study Skills Analysis: A Pilot Study Linking a Success and Psychology Course', Community College Journal of Research and Practice, vol 37, no 5, 2013, pp 397-401. doi: <https://doi.org/10.1080/10668926.2012.716386>
* van Rooij, E et al, 'A systematic review of factors related to first-year students' success in Dutch and Flemish higher education', Pedagogische Studiën, vol 94, no 5, 2018, pp 360-404.
* Webb, O, Wyness, L and Cotton, D, Enhancing Access, Retention, Attainment and Progression in Higher Education: A Review of the Literature Showing Demonstrable Impact, Higher Education Academy, 2017.
* Worsley, JD, Pennington, A and Corcoran, R, 'Supporting mental health and wellbeing of university and college students: A systematic review of review-level evidence of interventions', PLoS ONE, vol 17, no 7, 2022, p e0266725. <https://doi.org/10.1371/journal.pone.0266725>
* Xu, J et al, 'The Impact of Study and Learning Strategies on Post-secondary Student Academic Achievement: A Mixed-methods Systematic Review', PsyArXiv, 2021. doi: <https://doi.org/10.31234/osf.io/7ng5y>