

Student engagement through partnership: a literature review

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Foreword

The importance of student engagement through partnership has grown exponentially over the last decade. Students' active participation in their learning shapes and enhances their learning experiences. Adding to this important area, this literature review considers peer reviewed articles from a five-year period, 2017 to 2022. The review offers a valuable contribution that sits alongside more conceptual current thinking and debate regarding student engagement through partnership.

The review provides recommendations grouped for policymakers, researchers, students and teaching staff. What is clearly evident is that the principles surrounding students as partners are relevant to many aspects of enhancement and innovation in the wider curriculum and pedagogical approaches. Therefore, this topic remains a critical area of work for the sector and Advance HE.

Historically, Advance HE has commissioned significant research on the benefits and impact of engaged student learning, working with institutions to develop and embed partnership through a range of open and bespoke programmes. Similarly, Advance HE has produced resources and guidance for individual academics, students' unions and senior managers to promote effective student engagement in the classroom and in the development of the higher education curriculum more broadly. Advance HE also acknowledges the complementary work on student engagement undertaken by other sector bodies and agencies, and this review adds to this continuum. The review will help shape and develop upcoming activity, enhancing future work streams where these elements intersect with broader thematic areas such as curriculum development, innovative pedagogies and student transitions through higher education.

In the UK context, engaging students through partnership offers a range of opportunities to develop practices which may have a positive impact on the outcomes of the National Student Survey and, where relevant, the Teaching Excellence and Student Outcomes Framework. But partnership goes beyond measures of success, or at least proxies for success; these areas are intertwined with values that are relevant beyond metrics and are just as important at a global level; for example, such things as belonging and mattering, which also point to the nodes of intersect with other thematic areas such as access, retention, attainment and progression. Supporting the development of partnerships is critical to student success and we're delighted to add to the wealth of literature, case studies and research to enable institutions to better understand how to consider and enhance these areas.

To conclude, I wish to thank the authors for their time and considered thoughts. The review provides an important addition to the ongoing interrelated work being undertaken by Advance HE through the review and update of the Essential Frameworks for Enhancing Student Success, providing our members with insights into current, relevant and research-informed practice.

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Executive summary

Introduction and purpose of the review

Student-staff partnerships are reciprocal initiatives where students can take joint responsibility for directing their learning and development, and staff can benefit from student expertise in being a current learner in higher education. Reports from Advance HE, and formerly from the Higher Education Academy (HEA), outline the possible benefits of partnership, illustrate potential barriers to effective partnership and identify practice case examples. Healey et al (2014) identified four key areas of focus: (1) learning, teaching and assessment, (2) curriculum design and pedagogic consultancy, (3) scholarship of teaching and learning, (4) subject-based enquiry. The purpose of this work is to review the literature since 2016 to investigate the effect of student engagement through partnership on student outcomes.

Approach

The literature search captured papers published between January 2017 and April 2022. After 1,172 articles were screened for relevance, 416 were classified into one of the four categories listed below, according to the evidence of impact.

Category 1: demonstrable impact for the cohort (student outcomes evaluated compared to a control measure).

Category 2: emerging impact for the cohort (student outcomes collected but without a control measure).

Category 3: emerging impact for the partner (the student outcomes are specific only to the student partners).

Category 4: broader literature (on topic but outside of the scope of the review eg no primary data, editorials, review article).

Insights

+ **Evidence is still emerging on the generalisable effects on student outcomes of adopting student engagement through partnership.** Only 9% of relevant papers provided primary evidence for the impact of partnerships on student outcomes beyond only those directly involved in the partnership ie a wider cohort. The evidence in category 1 is very positive regarding student satisfaction and both objective and subjective measures of student learning. But this only included 18 articles in a period spanning just over five years. Findings from papers in category 2 were also mainly positive but did not compare the outcomes to a control measure. Therefore, it is difficult to determine impact without a sense of what outcomes were like before. Furthermore, the student outcomes were subjective in the majority, which may or may not be valuable for the reader depending on their goal for partnership (ie to improve student perceptions or measure objective metrics such as grade, attendance, retention). Therefore, while the weight of evidence is favourable for engagement through partnership, the literature base is limited in terms of breadth. There is also a risk of publication bias in these categories, as negative or neutral experiences are reflected more in category 4 in the form of reflections or perspectives. So, given some of the valid

criticisms of engagement through partnership discussed in the review, there should be an emphasis for future research to evaluate and share primary student outcome data to inform practice.

- + **The benefits and challenges for students engaging as partners are well established.** Student outcomes for those involved with partnerships were largely positive (category 3; 53 articles). The five most common benefits perceived by student partners were: (1) a sense of community, (2) skill development beyond the core curriculum, (3) opportunity for teamwork and to practice communication skills, (4) enhanced employability, and (5) 'deep learning'. Challenges were also acknowledged, with the most frequent being: (1) the time commitment, (2) negative emotions, (3) managing partnership hierarchy, (4) lack of diversity in the student group, and (5) conflicting expectations between staff and students.
- + **There is a risk of inequitable opportunities to become a partner.** There is evidence that partnership initiatives can improve equality, diversity and inclusion (EDI) when recruitment is targeted. However, individual student circumstances may limit opportunities to engage in partnership. Steps should be put in place to ensure all students can contribute to partnership if they wish, particularly given the perceived benefits for employability and networking.
- + **There are valid criticisms of engagement through partnership.** In addition to the risk of inequitable opportunities for students to become a partner, other criticisms in the literature relate to: (1) introducing risk for staff and students, (2) the inability of partners to fully distance themselves from existing power dynamics between staff and students, (3) potential breakdown of trust between parties, and (4) the possible need for staff and student voices to be separate to facilitate 'activism' and real change rather than compromise.
- + **Literature published in the English language is dominated by four locations.** Of the studies in categories 1-3, 81% were from four locations: the UK (37%), Australia (16%), USA (14%) and Canada (14%). There is then a jump to the next most frequent, which were Ireland (5%), and Germany and Malaysia (both 2%). Therefore, the applicability of the findings to areas with different education systems and social cultures should be considered.

Limitations

As the objective of the review was to evaluate the effects of engagement through partnership on student outcomes, the results are limited to peer-reviewed published articles. Where case studies or conference proceedings/presentations were identified, the lack of data in the abstracts/slides/summaries made them ineligible for inclusion. Therefore, there may be good examples of impactful initiatives not being shared in the peer-reviewed literature. Reasons will be varied but may include those staff involved not considering these activities to be research per se, and therefore not relevant for publication. Alternatively, staff in some institutions may not have the time to focus on external dissemination. To further develop understanding in this area, staff should be encouraged to disseminate their findings, and supported to ensure student outcomes can be evaluated. Review limitations are discussed in greater detail in the full report.

Recommendations

Policymakers and leaders	Researchers
+ Make quality assurance processes flexible: quality assurance is important, but so is allowing teaching staff freedom to react to partnerships efficiently. Some of the class-based examples presented in this review would not be possible in some institutions with more rigid processes for module change or assessment task moderation. + Provide opportunities for internal project funding: several examples offered financial incentives for student partners, or funding to support other aspects related to the partnership. Institutional funding demonstrates a commitment to partnerships and rewards those involved, which may foster motivation to take part. + Create external funding calls and encourage the recruitment of student partners in the project team: category 1 articles, defined as evaluating changes in student outcomes before and after partnerships, represent only a small proportion of the literature. More of this research is required to demonstrate impact, but it is difficult and time consuming. Awarding external funding in this area will support efforts by generating esteem and a viable research-development route for staff. + Encourage dissemination: of both positive and negative findings either internally or externally to add to the knowledge base, support internal and external academic colleagues in a collegiate manner, and deliver recognition for the institution. + Build a community of practice: building a community will help share practice, evaluate findings and identify where partnerships may remain local or be scaled up. + Reach underrepresented student groups: EDI is high on the agenda for many for general citizenship, but also for external awards such as Athena Swan. This review shares examples of how others have used partnership to support such work.	+ Measure impact: track student outcomes to confirm impact and evidence the benefits of engagement through partnership for students, colleagues and leaders. Continue after the publication to confirm a trajectory, plateau or diminishing of benefits. Doing so will also allow more objective measures such as attendance, retention and progression to be factored in. + Use mixed methods: less rich, quantitative data can provide insight from the wider cohort to set a context for qualitative findings. Working with others with different skill sets will allow for a more rounded evaluation of engagement through partnership initiatives. + Consider routes of dissemination to reach a wider audience: it is acknowledged by others that the number of academics researching or practicing in this area needs to be broadened. When writing articles, remember that the reader may not be an experienced researcher, or might be from a different discipline and new to reading pedagogical research. + Report on subject-based enquiry partnerships: label such research as student-staff partnerships to increase visibility of this area of focus.

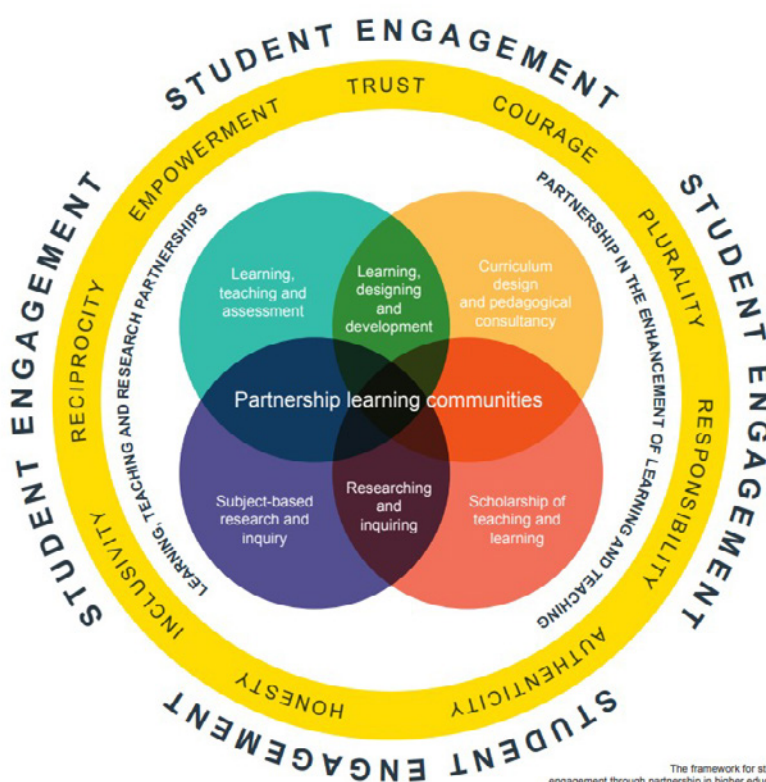
Teaching staff	Students
+ Give it a go: everybody starts somewhere. The research is very positive, but don't be anxious if your experience is more negative or if the partnership does not reap rewards straight away. + Pre-empt the common barriers and consider your position: acknowledge that while it is a partnership, ultimately a member of staff will be in charge in most cases so there will be an underlying power relationship. Be transparent with students about your motivations, what you hope to achieve, why you think a partnership will help, what the student time commitment and remit is, and what the individual and wider student cohort are likely to gain. Have a back-up in case it goes wrong or a partner exits the project. + Think about why you are doing it: do you want to improve engagement across your whole cohort? Use student input to support a broader issue? Increase the voice of a particular type of student? These and other reasons are all valid but knowing this at the start will dictate what level of partnership you initiate. + Factor in member transition and project sustainability: students are temporary members of partnerships. Everybody has the power of exit and students graduate. How will you keep longer term initiatives going when this happens? + Consider recruitment: think about whether you are creating equal opportunities and are hearing voices that reflect the whole student cohort. + Evaluate and share good and bad: consider what you want to have impact on and set a measurable outcome at the onset to help evaluate the partnership.	+ Know what is expected of you: ask questions, if it is a partnership then there should be no problem getting answers. Having a clear remit is best for all parties to facilitate the delivery of objectives. + Consider why you are doing it: what do you hope to achieve? Will simply being a member of the group help you achieve this, or do you need to set concurrent goals? + Be prepared that you might not meet your personal objectives: and that is ok. You will still gain the experience to reflect on to support you in future challenges. Talk to others in the group and ask staff for feedback, you might not realise yourself what you have gained. + Manage your expectations: the research is full of positive stories. But there are also negative views. Do not take it personally if it does not work out, learn from it. + Be aware of power: in theory, partnership places all members on a level but be aware that there are various levels of partnership, and in all likelihood a member of staff will take the lead. + Do not compromise: when striving for change on a particular matter consider if a partnership is the most appropriate vehicle, as everybody's motivation may be different.

Introduction

Student engagement is defined by Advance HE as “the extent to which students are motivated, passionate and curious about their programme of study, the HE provider community they live and work within and its immediate environs”. It can be a challenge to foster student engagement due to competing interests and needs of students, such as peer influences (Kassarnig et al, 2017) and employment commitments (Crockford et al, 2015). Therefore, efforts to facilitate student engagement need to be mindful and sympathetic to such conflicting needs and place the student at the centre of their learning. One way to do that is by engaging students through partnership, where students can play an active role in shaping their curriculum, opportunities and learning experience.

Examples of opportunities for partnership include disseminating good practice (Peart et al, 2014; Peart et al, 2018), curriculum design (Bron et al, 2016; Dollinger and Lodge, 2020), assessment feedback (Hussain et al, 2019), and peer review of practice (Cook-Sather, 2018a). The Advance HE framework for student engagement through partnership identifies the need for reciprocal benefit, trust and shared responsibility between students and staff to make partnerships honest, authentic and inclusive. These ideals will facilitate true partnership as opposed to consultation (Healey et al, 2014). Healey combined these ideas in the 2014 report to form the premise of the Advance HE framework, which identifies four key areas of focus, supplemented by several partnership values (Figure 1).

Figure 1. The framework for student engagement through partnership in higher education (Advance HE, 2019)



The key areas of focus are summarised in the framework as:

- 1 Learning, teaching and assessment: engaging students through partnership casts students as active participants in their learning. Approaches include collaborative active learning, offering a level of choice, and co-designing materials.
- 2 Subject-based research and enquiry: engaging students as co-researchers and co-inquirers can involve all students in a programme of learning through research, or selected students working with staff on extracurricular research projects. Approaches include students developing new knowledge in their discipline or sharing their findings publicly.
- 3 Curriculum design and pedagogic consultancy: partnership approaches involve students in the formal processes of course design, revalidation and professional development for staff.
- 4 Scholarship of teaching and learning: inquiring into learning, teaching and assessment in partnership with students as co-designers and in developing actions.

In 2019, Healey and Healey published an update to the 2014 review to include examples of ongoing work (Healey and Healey, 2019), and reflective prompt questions for each of the four areas of focus. However, despite these examples of good practice and positive intentions of partnerships, such initiatives are not without their challenges. These include the time required to build meaningful partnerships, navigating traditional roles and the power relationship between staff and students, overcoming resistance and navigating institutional processes (Acai et al, 2017; Bovill et al, 2016).

There is also the question of whether there is equal opportunity for all students to enter a partnership. Therefore, it is important that partnerships are suitably evaluated to ensure that they are having a genuine impact on the learning experience, student outcomes and staff activity, and how widely this impact reaches. There is now a growing base of peer-reviewed literature on student partnerships; synthesising the available research will help to evaluate the effects of these on relevant outcomes. This review will build on the seminal Advance HE and Higher Education Academy (HEA) papers by evaluating peer-reviewed research outputs through the lens of the Advance HE framework informed by their work. The retrieved articles will be discussed in relation to the way student outcomes were measured (objective or subjective), when they were measured (pre, during or after partnership), who they were measured in (few partners or wider cohort), who acted as a partner (all or a select few), and the country of origin. These aspects will be considered to help readers relate the findings to their own institutions, practice and objectives, and identify the inclusivity of student outcomes.

The purpose of this paper is to review recent literature on student engagement through partnership (post 2016), with an emphasis on partnerships that evaluate student outcomes beyond a select few partners. As engagement through partnership is relevant for several areas of practice in higher education, there is crossover with Advance HE's other Essential Frameworks for Enhancing Student Success eg transforming assessment, employability and internationalisation. Therefore, this review complements evidence updates in those other areas.

Structure of the review

The review starts with an overview of the search methodology followed by a summary and synthesis of findings structured as:

- + an overview of research under each category of literature (see method for definitions)
- + how the four key areas of focus from the Advance HE framework are represented in the retrieved literature
- + discussion of broader concepts as they relate to student partnerships, namely international breadth of literature, inclusivity of partnerships and critiques of student partnerships
- + a student perspective on the findings
- + synthesis and discussion of all the findings
- + recommendations for policymakers, researchers, teaching staff and students.

Method

Search strategy

A search of the following databases database search was conducted using Web of Science, British Education Index and the Education Resources Information Center (ERIC) using the following search terms:

(Higher education OR degree OR undergraduate OR postgraduate OR tertiary) AND (student partnership OR student-staff partnership OR students as partners OR co-design OR co-create) AND (engagement OR impact OR learning OR teaching OR assessment OR inquiry OR scholarship OR curriculum) AND (satisfaction OR attendance OR progression OR retention OR achievement OR completion OR grade OR attainment OR classification) AND NOT (high school OR primary school OR secondary school OR middle school OR elementary school) AND PUBYEAR = 2016 – current (April 2022)

Other sources, listed below, were hand searched:

- + Advance HE Knowledge Hub (www.advance-he.ac.uk/knowledge-hub)
- + Staff and Educational Development Association (SEDA) website (www.seda.ac.uk/)
- + The Society for Research into Higher Education website (<https://srhe.ac.uk/>)
- + Expert bibliographies from Healey HE consultants (www.healeyheconsultants.co.uk/)
- + International Journal for Students as Partners archive (<https://mulpress.mcmaster.ca/ijsap>)

Category criteria

Peer-reviewed articles were categorised according to the criteria in Table 1. The categories were developed to disaggregate levels of impact for the student cohort specific to the objectives of this review, and not to imply a ranking of research quality.

Table 1. Category definitions

Category 1 (C1): Demonstrable impact for the cohort	Category 2 (C2): Emerging impact for the cohort	Category 3 (C3): Emerging impact for the partner	Category 4 (C4): Broader literature
The purpose of the study was to implement and evaluate a staff-student partnership to improve a student outcome in higher education for a defined cohort. Primary data has been collected from the cohort (subjective or objective, quantitative or qualitative). The impact was evaluated via comparison to a control measure (eg pre-intervention, another cohort etc).	As per category 1, but without comparator data.	As per category 2, but there is only data from the student partner(s), and not the wider cohort.	Articles related to students as partners, but outside the scope of this review. For example: + author perspectives, opinions or reflections + editorial + limited primary data eg quotes within the text without an accompanying method, conference presentation + secondary data analysis, such as a review. + objectives and/or outcomes outside the scope of this review eg no primary data from students, theoretical, logistical matters.

Data extraction

Author(s), country of origin, level of partnership and activity of focus were extracted for C1, C2 and C3. Partnership activity details, and findings in relation to student outcomes were also extracted for C1 and C2 articles. The level of partnership was defined according to Table 2 and area of focus defined based on the current Advance HE framework for student engagement through partnership in higher education: (A) curriculum design and pedagogic consultancy, (B) scholarship of teaching and learning, (C) learning, teaching and assessment, (D) subject-based research and enquiry. Where there were varied levels of partnership or more than one area of focus within a study, that paper was coded multiple times as required. If it was difficult to allocate a level of partnership based on the paper method, and it could have been coded as one of two levels, for consistency the lower level was applied so as not to make assumptions. Category four articles were grouped as: (1) author perspective/opinion/reflection, (2) editorial, (3) limited student primary data, (4) secondary data/review, (5) outcomes outside of scope, (6) book/other resource review.

Table 2. Levels of partnership

Level of partnership	Definition from Figure 1.1 in Healey et al (2014), based on the NUS/HEA student engagement toolkit	Simplified author agreed interpretation for coding purposes
1. Consultation	Opportunity for students to express individual perspectives, experiences, ideas and concerns.	The students are asked something.
2. Involvement	Opportunities for students as individuals to take a more active role.	The students are asked to do something.
3. Participation	Decisions are taken by students to take part or take a more active role in a defined activity.	The students choose to do/initiate something.
4. Partnership	There is a collaboration between an institution/faculty/department and student, involving joint ownership and decision-making over both the process and outcome.	The students lead or co-lead something.

Reflection on the search strategy and limitations

Focus of search strategy and risk of omitted research: the database search strategy was originally designed to specifically retrieve articles falling within C1, and when a limited return was evident the records were re-screened to capture C2 papers. Those in C3 were retrieved alongside these papers, and C4 papers were itemised to reflect the broader literature base rather than excluded completely. Therefore, it is acknowledged that the search term may not be optimal for C3 and C4, and some papers may have been missed where they do not specify student outcomes. However, this is less of an issue when it is considered that the focus of this review is the effect of partnerships on cohort student outcomes, so C1-2 have been used as the foundation for the discussion, with C3-4 papers complementing rather than directing discussion. In a similar sense, the search term was not optimised to retrieve all papers focusing on equality, diversity and inclusivity (EDI). This is because the inclusion of relevant terms such as 'access' and 'equity' made the return unmanageable within the timeframe for this review, and it was difficult to define all relevant student outcomes. So, like the C3 literature, these papers were identified outside of the database search. That is why those papers where EDI is the focus are not included within the three defined categories but discussed under their own heading.

Grey literature: non-peer reviewed case studies and exemplars are available that share practice, but they were not included in this review due to not including enough data.

Student partnership terminology: variations of terms related to student partnership were included in the search. However, other terms may be used internationally that we could have omitted unintentionally. It was also possible that the terms used to identify partnerships may have discriminated against level 1 partnerships (consultancy) if the authors did not identify the paper as an example of

partnership themselves. But, when reviewing the results, there are several records in this category showing that they were not excluded completely. Also, the hand-searched sources were done without filters applied, reducing the likelihood of omitting C3 or C4 papers, or consultancy level partnership.

Levels of engagement/partnership: the level of partnership and area of focus were difficult to code in places, and the overall coding is influenced by our perception and is therefore subjective. While we used the four-point framework, readers may also be aware of other methods such as the eight-runged ladder of participation (Bovill and Bulley, 2011) and adapted participation matrix that includes the levels of inform, consult, involve, partner, control (Bovill, 2017).

Type of partnership: this review focused on partnerships between faculty staff and students. There are other types of partnerships that were outside of the scope of this review but still have potential to impact on the student experience, for example with other institutions, communities or industry partners.

Findings

General findings

Following an initial exclusion of duplicate and irrelevant records, 416 articles were distributed between the four main categories and EDI category (Figure 2). The characteristics of research within each of these categories is discussed in subsequent sections. Figures 3 and 4 indicate the proportion of research in categories 1-3 that fell under each level of partnership and area of focus.

Figure 2. Distribution of retrieved articles between the categories

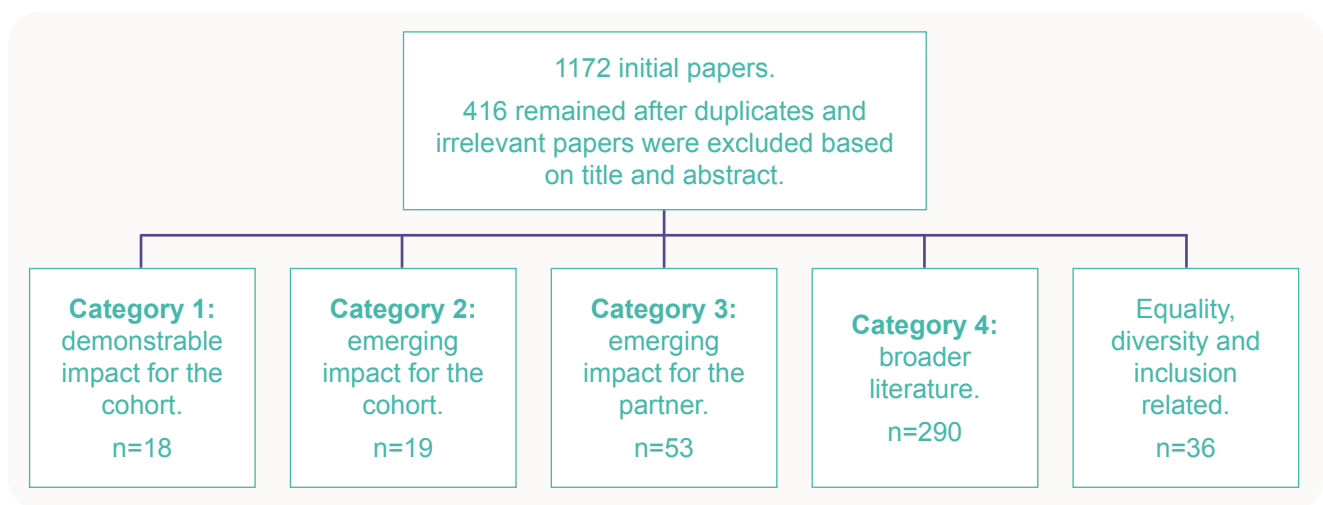


Figure 3. Percentage of studies using each level of partnership for categories 1-3 (some studies cross more than one)

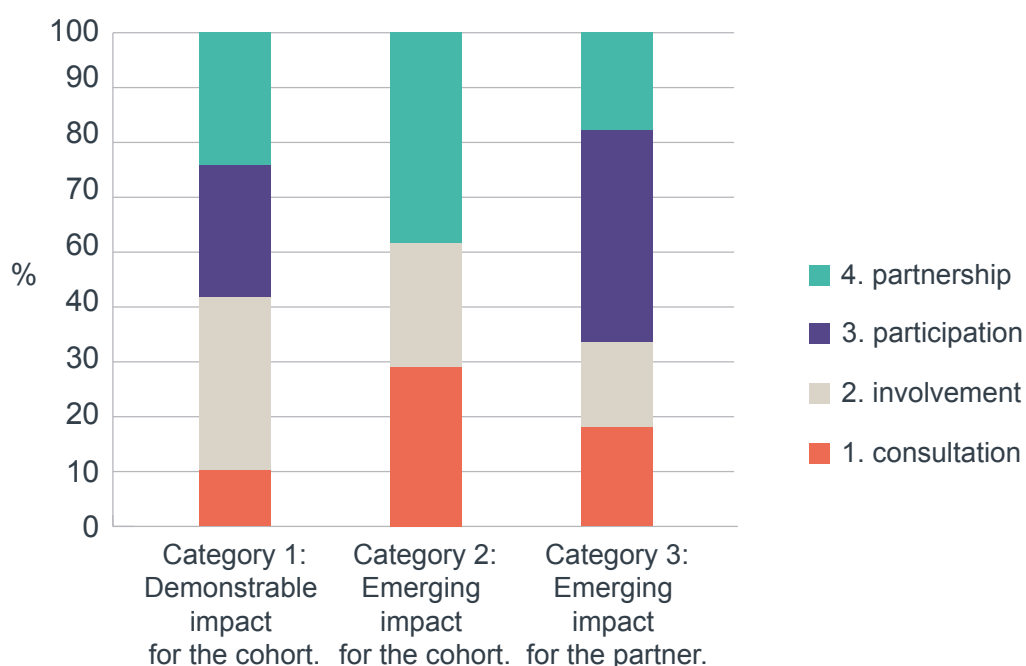
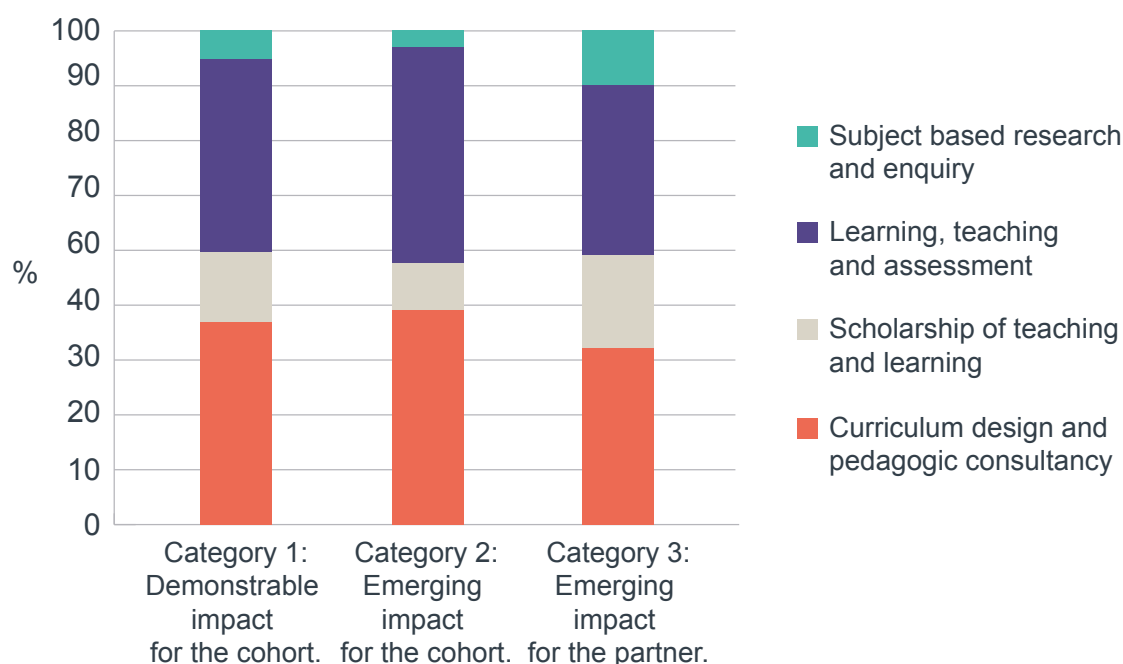


Figure 4. Percentage of studies focusing on each key area of focus for categories 1-3 (some studies focus on more than one).



Category 1 (C1): demonstrable impact for the cohort

Overview of category 1

Eighteen articles qualified for the demonstrable impact category as they measured a student outcome before and after a partnership intervention. The type of partnership in these studies was relatively even across the four levels (consultation, involvement, participation, partnership; see table 2), and the most common area of focus was curriculum design and pedagogic consultancy (Figure 4). Student satisfaction was the most frequent outcome ($n = 10$), followed by assessment grade ($n = 8$) and student-perceived learning/behaviour ($n = 5$), with outcomes linked to attendance or engagement the least common ($n = 4$) (n equals more than eighteen due to some studies crossing two categories). A summary of the articles is presented in appendix 1.

Student satisfaction

Four of the ten studies using student satisfaction as an outcome focused on assessment and/or feedback (Andrews et al, 2018; Chase, 2020; Hussain et al, 2019; Sutcliffe et al, 2019). Sutcliffe et al (2019) is an example of conducting student consultation as level 1 partnership, as students were asked for their opinions on assessment feedback to help staff shape future practices. While this level of partnership is low on the four-point scale, the resulting recommendation allows for future level 2 partnership, as student engagement is built into a student-tutor feedback engagement cycle.

Furthermore, since the project, student overall satisfaction increased from 75% to 91%, and NSS scores increased from 60% to 84% (NSS is the National Student Survey shared with all final year undergraduate students in the UK). Students were more involved as partners in the project described by Andrews et al (2018), where they volunteered to participate in focus groups to share feedback on their interpretations of evaluation questions and the assessment tasks. A smaller group of students facilitated the development of a series of tools to help translate assessment terminology and marking matrices into something more meaningful for students. The evaluation was over a four-year period, so it cannot be discounted that other factors may have also affected satisfaction. But since the introduction of the tools, both module and overall satisfaction increased for assessment and feedback. Hussain et al (2019) present another step up in partnership as current and former students contributed to different stages of a tiered approach. The main aim of the partnership was to help students understand what was expected of them for the summative assessment. The initiative resulted in improved student satisfaction across all measures, and the observed cohort scored on average 9% higher than the previous cohort. However, typical variation is unknown, so it is hard to put this change in context. Increasing the level of responsibility for student input is Chase (2020) who, through an iterative in-class process, empowered students to co-create the requirements for 20% of the summative assessment. Student perception of power towards assessment improved following the initiative, but attitude towards assessment did not. Important to note, though, is that both these criteria already scored six on a seven-point scale, so there was not much room for improvement. Unfortunately, assessment grades were not presented to evaluate the effect of student input into the requirements on academic performance.

The remaining six papers focusing on student satisfaction were related to course development, delivery or environment (Bengtson et al, 2017; Brown and Velikov, 2019; Gonzalez-Yebra et al, 2019; Huq and Gilbert, 2017; Inguva et al, 2018; McDonald et al, 2021). In response to falling student participation despite high satisfaction in a guided IT training programme, Brown and Velikov (2019) partnered students employed in a student training advisor role with professional services to redevelop the programme. The result was a move towards a practical training format, which was found to increase the already high satisfaction from 95% to 100%. The impact on attendance was also positive and will be covered later in this section of the review. While the programme described by Brown and Velikov was co-curricular as opposed to core, others partnered with students to develop core curricula. Like Brown and Velikov (2019), Inguva et al (2018) partnered with students to review content in response to falling student satisfaction. After a further drop in satisfaction in the implementation year due to teething issues, there was an increase the following year. Huq and Gilbert (2017) consulted with students over a three-year design period, witnessing increased course evaluation completion rates and satisfaction. Although it is not clear whether the increase in satisfaction was due to the new course design or the increased number of survey completions, the results allow the course team to gain a more valid overview of student satisfaction. Bengtson et al (2017) and McDonald et al (2021) engaged students as partners at a higher level, and in a tiered fashion. Bengtson et al (2017) consulted with the cohort initially and then engaged fewer students as partners for the subsequent action stage. In contrast, McDonald et al (2021) provided two levels of active partnership for all

students. The aim of the project evaluated by Bengtson et al (2017) was to redevelop a physics course for undergraduate chemistry students, with an initial student role of sharing course feedback in a focus group, and a second stage where students were employed as co-developers. Staff and students grouped together during stage 2 based on their chosen area of priority, with working groups initiated for (1) seminars, (2) student activity, (3) course literature, and (4) table of formulas.

The specific input of students in these groups was to design seminars, review materials to identify content that was unclear or where there could be more interaction and design a new formula resource to replace the old handbook. When the cohort who experienced the redesigned course were asked whether they agree or disagree with the statement “this is a good course”, the level of agreement was statistically higher than in previous cohorts. Neither stage of the partnership in the intervention from McDonald et al (2021) reached as high a level as stage 2 in Bengtson et al (2017), but their approach did allow them to engage more students. All 2,095 students on a first-year human anatomy course were invited to contribute to an e-learning format called RiPPLE, where they could choose to develop and upload learning resources, and then take the next step of moderating content if they wished to. Sixty-six percent of the cohort logged on to the platform and, of those, 54% engaged in some manner (744 from an original 2,095). Student satisfaction increased compared to previous years, but it is important to consider that the authors did not conduct any statistical analysis or provide typical variance from previous years.

Student learning

Student learning is an important outcome but is difficult to measure. It could be interpreted that the previously discussed research into satisfaction may help student learning due to a possible agreement between preferred environment and achievement. Indeed, some of this research also looked at achievement (Bengtson et al, 2017; Brown and Velikov, 2019; Huq and Gilbert, 2017; McDonald et al, 2021). When aiming to evaluate the effects of partnerships on learning, the approach can be grouped two ways; those that examined perceived learning quantitatively and/or qualitatively through subjective survey questions, interviews or focus groups, and those that measured it more objectively through assessment grades. Both approaches have their merits and limitations. Objective measurement of assessment grade provides an unbiased view of learning but is specific to that task and findings may not transfer beyond that. On the other hand, perceptions of perceived learning can neither confirm nor refute that learning has taken place. However, they may provide additional insights of the learner experience beyond the assessment grade. Aranda et al (2021) is an example of this conflict as although they aimed, and achieved, to impact on student learning more broadly by focusing on perceptions of different scientists, it is difficult to predict how this will transfer to achievement or future learning.

In two papers investigating student satisfaction alongside learning, the interventions developed by the partnership were perceived to be beneficial for learning, whether it be an improved ability to apply skills from a redeveloped course (Brown and Velikov, 2019), or an understanding of the role of humour and role play in learning (Huq and Gilbert, 2017). McDonald et al (2021) took a more quantitative approach to assess their use of the RiPPLE platform introduced in the earlier student satisfaction section. Students in the intervention module scored higher than in a control module without RiPPLE.

This could have been due to several factors other than RiPPLE, but further analysis found that grades in the intervention module also increased compared to the same module in the previous year, which was not seen in the control module. Moreover, there was evidence of a relationship between engagement (number of questions interacted with) and a student's final grade. Bengston et al (2017) reported no improvement in the class average for their redeveloped physics for chemistry course. However, the average score was already quite high pre-intervention at 63%, and this was not a primary aim of the intervention. Two further studies took a quantitative approach to examine the effects of partnerships on learning, one a level 2 partnership based on in-class activity (Doyle et al, 2021), and the second a level 4 partnership that focused on a course redesign (Duda and Danielson, 2018). Like McDonald et al (2021), Doyle et al (2021) invited students to contribute to a shared revision tool through two tasks: (1) multiple choice questions and (2) a three-minute video. Both tasks were associated with a different topic on the exam, and 87% (175/202) of the students participated fully. Exam results indicated that students did better in the topics for which they conducted their two tasks compared to a third topic with no associated task (used as a control for ethical reasons). Duda and Danielson (2018) report on a stronger example of partnership, where students and staff paired to review courses across various disciplines. The role of each partner was clearly defined, and the project had a formal minimum meeting and objective structure. As the evaluation covered multiple projects the specific intervention employed is vague, but three case studies explored in the paper provided an analysis of data. All three subjects observed an improvement in cohort exam scores either mid-term or at the end of the course, although the analysis method differs between the case studies and might be a sign of confirmation bias.

Two remaining papers focused on learning took a mixed methods approach, one using subjective quantitative measures (Hanna-Benson et al, 2020), and the other looking at objective quantitative measures (Aumiller, 2021). Hanna-Benson et al (2020) invited students studying a science education module to co-create the syllabus through a five-stage design process, with a tiered partnership that gradually required more student input. Engagement and motivation, measured through quantitative questionnaires, did not improve post intervention. However, qualitative measures identified themes of student growth and awareness, which may be of benefit for future courses. Similarly, Aumiller (2021) found no change in quantitative measures post partnership, despite offering a rich opportunity for students to agree and shape the course objectives and grading scheme, but they did observe some positive qualitative responses associated with relationship building. Important, though, is that student grades were already very high in this cohort, which may have left little room for improvement, making the qualitative data more relevant.

Attendance and engagement

Engagement has been inferred in some studies throughout this section where the number of students taking the opportunity has been indicated (Doyle et al, 2021; McDonald et al, 2021), and Brown (2018) also presents attendance and engagement statistics. However, these outcomes were not measured pre and post intervention. As already mentioned, Hanna-Benson et al (2020) did measure perceived engagement but with no positive impact. Brown and Velikov (2019) used more objective outcome

measures and witnessed an increase in both the total number of attendances (209 to 641), and the number of different individuals attending (118 to 235). One further study made engagement the primary outcome of its partnership intervention (Jay et al, 2019). Specifically, it set out to observe engagement with a course social media page facilitated by student mentors who had recently completed the course themselves. Acting as a liaison between the course page and staff, they were able to flag inaccurate posts, common mistakes and dishonesty. The team developed a grading system to analyse the posts pre and post intervention, observing an increase in post quality in the intervention year compared to the two preceding years.

Category 2 (C2): emerging impact for the cohort

Overview of category 2

Nineteen articles were classified as having emerging impact as they implemented a partnership intervention and explored its impact on the wider or a future student cohort. Unlike category 1, there was no comparator data collected in the category 2 studies. We will therefore be cautious when discussing category 2 papers in terms of the transferability of findings as we cannot exclude the possibility of the findings being there inherently, without a partnership intervention. A further interesting observation is, despite all 19 articles in this section being pedagogically focused, the research methodology (ie qualitative versus quantitative, all subjective outcomes), seemed very driven by whether the university course was classified as STEM (science, technology, engineering and mathematics) or non-STEM. The only studies which provided quantitative data in the category 2 group were those involving STEM subjects and students (n=7) (Colson et al, 2021; McKerlie et al, 2018; Mello et al, 2017; Muñoz-Escalona et al, 2018; Rivers et al, 2017; Scott et al, 2019; Sharma et al, 2021). However, importantly, these studies also employed qualitative research techniques to provide richer context and support for the quantitative findings.

There was a predominance of level 3 partnerships being used (n=12), followed by level 1 (n=9) and finally level 2 (n=7), with no level 4 partnerships identified. In terms of areas of activity, curriculum design and pedagogic consultancy (n=13) and learning, teaching and assessment (n=13) were of equal prevalence, while there were fewer studies exploring scholarship of teaching and learning (n=3) and subject-based research and enquiry (n=1) (Figure 4). Study outcomes ranged across seven aspects: engagement/empowerment (n=12), learning/knowledge (n=7), sense of community (n=2), confidence (n=2), assessment literacy (n=2), with digital literacy only considered once (n equals more than 19 due to some studies having crossover between categories for the partnership, area of focus and outcome). A summary of articles is presented in Appendix 2.

Course and material re/design interventions

There were 12 studies which implemented redesign interventions as the focus of the partnership, either involving full curriculum/course re/design (n=6) (Billett and Martin, 2018; Keeling et al, 2021; Kiester and Holowko, 2020; Mello et al, 2017; Monico and Kupatadze, 2020), or material/resource re/design (n=6) (Bell et al, 2019; Blau and Shamir-Inbal, 2018; Chilvers et al, 2021; McKerlie et al, 2018;

Sharma et al, 2021; Woods and Homer, 2021), but which had outcomes related either to engagement/empowerment and/or enhanced learning/knowledge. All six studies relating to course re/design involved students redesigning course curriculum (ranging from learning activities, assessment tasks and suggesting readings), while those focusing on material re/design only focused on one aspect of the curriculum/course. These studies identified that when students are involved in course and material co-design activities, at least as level 2 or 3 partners, there were positive results in terms of engagement with course content and/or deep learning of discipline-specific content. We must be mindful that at least one of these studies (Keeling et al, 2021) only gathered the qualitative responses of two students (ie a very small sample size). Despite this, their findings were in line with others. An interesting observation related to the study by Kiester and Holowko (2020) where, unlike all other studies, the partnership was between staff and students from different discipline areas. More specifically, the staff member was an assistant professor of sociology, while the student was studying computer and political science, yet the student still contributed to the course design by selecting readings and video content, designing assignments, creating in-class activities, and building quizzes and exams. This collaboration is interesting as it raises the idea that the partnership does not necessarily need to be discipline specific to be successful, but the success may depend on which outcomes are desired from the partnership.

Student confidence

The two studies (Benkwitz et al, 2019; Kek et al, 2017) that included perceived confidence as an outcome were both related to the learning, teaching and assessment area of focus. There are several commonalities between these studies, including that they engaged students at the same levels of partnership (levels 1 and 3), there was an element of social media implementation, and the enhanced confidence was due to students being able to ask questions of their peers using non-traditional methods. Both studies involved a small group of students working with academic staff to put a support mechanism in place for the wider student cohort. Kek (2017) implemented a closed Facebook community page to support 400 early childhood, primary, secondary and vocational education and training students' learning. Benkwitz et al (2019) initiated a WhatsApp group for a similar purpose, but for 74 students in the areas of youth and community work, sport, health and English. Qualitative evidence from these studies identified that both groups of students felt more confident asking their student peers questions to support their learning as the social media platforms provided an informal, safe environment, where students were able to share and clarify their knowledge outside of the traditional classroom. From these studies, there certainly seems to be a beneficial place for the use of social media by higher education staff. We tend to rely on platforms such as Blackboard to promote online student discussion, but should we be considering other platforms with which students are more familiar and there is no staff input? Anecdotally, from our own institution we know that students often organise groups on platforms such as Facebook and WhatsApp, which allow communication outside the university TEL platforms. Speaking informally with students, they seem to find this means of communication with their peers useful to support their academic studies.

When initially reading the work of Kek et al (2017), an interesting point was raised around whether a similar partnership would transfer such perceived benefits across other disciplines. Kek et al's study intervened with education students, who may have more of an understanding/vested interest in believing pedagogic interventions should work. However, as described above, there were very similar benefits found in other disciplines (Benkwitz et al, 2019), negating this observation. These findings are also supported by one of the category 1 papers discussed earlier (Jay et al, 2019).

Student learning communities

While promoting confidence, Kek et al (2017) also identified that the Facebook community page developed by the partners (level 3) promoted the building of a student learning community. However, Deeley and Bovill (2017) demonstrate that similar positive outcomes relating to the development of student communities can be achieved via more traditional methods, whereby students are asked to co-create assessment tasks. Thirty-three social science students co-created (level 2 partnership), with course staff, various elements of an essay-based summative assessment, contributing ideas towards essay titles, marking criteria, formative self-assessment and peer review of formative assessment. Of the 33 students who were involved as partners, 27 were included in the qualitative evaluation of the partnership, which identified that if students are involved in such assessment preparatory activities there is a sense of a learning community among students and an increased feeling of motivation and engagement. Interestingly, however, students also expressed dissatisfaction with some of the decisions made by academic staff during the partnership. To provide context, course staff suggested that the summative exam (which implemented the co-created marking criteria) should be typed and not handwritten, which was met with some resistance by students. There is obviously an inherent power relationship in student-staff partnerships (Acai et al, 2017). Therefore, in this example of a level 2 partnership where students are being asked to contribute, but not given full autonomy over decisions or do not fully understand the remit of their role before the project begins, problems might be encountered. We speculate that, perhaps, if the level of partnership had been higher (which is difficult in relation to assessment setting), such problems may not have arisen. Therefore, staff need to ensure that students are fully aware of the remits of their role in the project before entering into a partnership agreement, to try to alleviate any uncertainty. Co-creation of assessment tasks can also increase students' perceived sense of empowerment as demonstrated by Colson (2021). Four hundred students studying an online course/module in genes and disease co-created assessment marking criteria, and 71% of respondents claimed to have an increased sense of empowerment over their assessment as a result. The authors concluded that such an activity was successful with such large student numbers, therefore sizes of student cohorts should not deter academic staff from experimenting with assessment co-creation activities.

There were two studies (Muñoz-Escalona et al, 2018; Rivers et al, 2017) that focused on assessment literacy directly as an outcome, and were both related to the learning, teaching and assessment area of focus. The research methodologies were very similar in that they first involved a large group of students (around 200) taking a more active role (level 2 and 3 partnerships) in the co-creation of exam questions. All students were then surveyed (level 1 partnership) to establish perceived benefits around assessment literacy. In both studies there was perceived assessment literacy benefits.

However, discrepancies around the level of engagement were demonstrated by students. In the Muñoz-Escalona et al (2018) study, 74% of mechanical and aerospace engineering students believed that their performance in a later summative exam had improved as a result of this co-creation activity. Furthermore, 80% of students felt engaged and satisfied with this active learning process. Contrary to this, Rivers et al (2017) identified that, as the demand of the partnership involvement increased from being level 1 (responding to peer questions), to level 2 (commenting on questions), to level 3 (writing exam questions), levels of student engagement declined from 73% to 31% and 27%, respectively. There are several points we can make related to this. If students are given the choice of which partnership level to engage with, it seems they may prefer less complex and time-consuming co-creation activities, ie consulting on exam questions as opposed to conceiving questions. However, despite the level of engagement, both groups of students still perceived that their assessment literacy was enhanced, thus potentially negating the influence of the partnership level. It could be argued that, so long as students are engaging at some level of partnership, there are likely still to be perceived benefits. An important point not to ignore is that Rivers et al (2017) explored engagement over a three-year period as opposed to acutely like Muñoz-Escalona et al (2018), and so there could have been other confounding factors over that amount of time.

Benefits for the student partners

The focus of category 2 partnerships is on the influence partnerships had on the wider cohort of students. However in five of the 19 studies (Bell et al, 2019; Kek et al, 2017; Kiester and Holowko, 2020; McKerlie et al, 2018; Mello et al, 2017) they also identified a perceived positive benefit for the student partners involved. The main benefits perceived by the students were: enhanced employability skills (n=3), a deeper understanding of the subject area (n=3), and the development of leadership skills (n=1) These benefits were only observed when at least a level 2 partnership had been implemented. This summary is corroborated by the findings of the category 3 studies to follow.

Category 3 (C3): emerging impact for partners

As the focus of this review was on the impact of partnerships on student outcomes, more emphasis has been placed on categories 1 and 2 due to their broader reach across a defined cohort. Category 3 studies fall outside of this scope, so their full details have not been extracted, but the level of partnership, area of focus and country of origin have been extracted to contribute to understanding of research focus across these elements.

Across the whole category, papers were reviewed to extract what student participants perceived to be the benefits of being involved in a partnership. The identified themes are ranked below, with the number of papers identifying the theme given in parenthesis.

- 1 **Community (16)** – themes of relatedness, relationship building, networking.
- 2 **Skill development beyond the core curriculum (14)** – linked to study skills, discipline-specific skills and broad transferable professional skills.

3 **Teamwork and communication skills (13).**

4 **Employability (10)** – associated with career planning, increasing job prospects and exposure to industry.

5 **‘Deep’ learning (9)** – learning to learn or developing further knowledge beyond the core curriculum.

6 Three themes equally ranked.

a) **New experiences (8)** – with new content, areas or people.

b) **Understanding academia (8)** – understanding how universities work or the staff role.

c) **Empowerment (8)** – also identity and value alignment.

7 **Pride (7)** – in being selected, or in the ownership/outcomes of a project.

8 **Fun (1)** – they are enjoyable experiences.

Community was the most recurring item and included opportunities related to peers and staff from their course, but also external contacts to support networking. The next two items were general skill development and teamwork/communication skills enhancement. The latter was separated from point two to represent the frequency with which this specific perceived skill was mentioned compared to some others. It should be considered that these top three themes are as perceived by the students, typically with no comparison to non-partners to support the perception. Employability at number four is similarly a perception without matching-up graduate outcome data but does raise an area for future research to track student partners following course completion. It would also be of interest to understand the weight of esteem and currency such partnerships held with employers to support students make the most of communicating their activities. If these perceived benefits hold true then it is even more important to provide equal opportunities for students to engage with partnership, which will be discussed in more detail later in this review.

Similarly, the perceived barriers were also ranked based on the number of articles that acknowledged an associated theme.

1 **Time (8)** – either too much commitment, or not long enough to have a meaningful impact.

2 **Negative emotions (6)** – students finding partnerships daunting, and feeling anxiety, discomfort and frustration.

3 **Power/hierarchy (5)** – managing preconceptions or true power dynamics within the partnership.

4 **(lack of) Diversity (3)** – some partners identified that some student groups were not represented within the partnerships.

5 **Expectations (3)** – the project did not meet student expectations, or they did not perceive to have met their personal objectives.

6 Two themes equally ranked.

- a. **Conflict to change (1)** – from staff.
- b. **Sustainability (1)** – partners wanted to know that the effort they put in would continue after they had left.

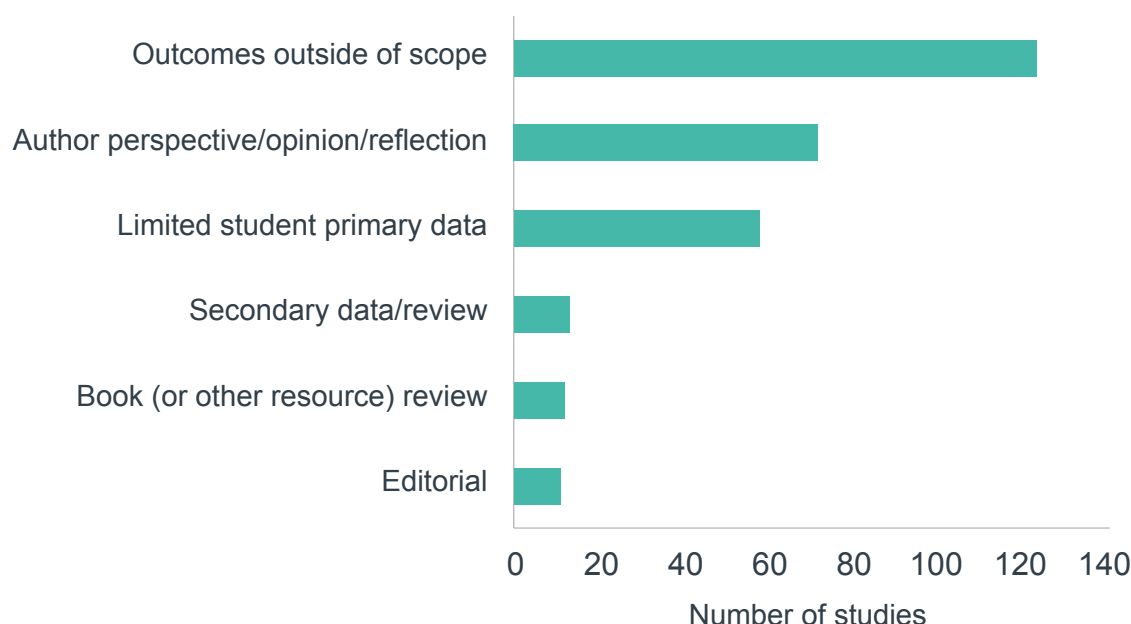
The first observation is that the frequency of reporting perceived barriers is not as high as the perceived benefits. Secondly, the time commitment is the most recurring barrier, which is important when considering the need to create equal opportunities for partnership. Some students may have more extra-curricular time than others. Negative emotions were ranked second, although in most cases these perceptions were reversed during the partnership. The perception of, or arguably at times need for, a power imbalance ranks third and cannot be ignored by staff or students. Lack of diversity may relate to unequal opportunities to engage in partnership, which has been touched on here and will be covered more later. The final two relate to logistics of partnerships to be included in the recommendations section later.

Category 4 (C4): broader literature

Sources that did not meet the criteria for categories 1, 2 or 3 at full text review were placed into a fourth category rather than be excluded entirely (see Table 1 in the method). This was to acknowledge and direct the reader to the broader literature, as while they are out of scope here, they do contribute to the knowledge base and critical discussion around student partnerships. All these papers are linked in the data file that accompanies this review. Figure 5 indicates the main groupings of reasons why a source fell under category 4, with the two main reasons being that the outcomes of the paper were **outside of the scope of this review** (eg discuss partnership logistics or present only staff data), or it was limited to the **author perspective** (eg opinion or reflection). These are typically because authors offer a narrative or theoretical account of partnership rather than present primary data. The **limited student primary data** tag was typically where a conference presentation or abstract did not include the data, or a narrative partnership account with select quotes to illustrate a point, without describing a primary data collection method. **Secondary data/review** articles include a seminal systematic review in the first issue of the *International Journal for Students as Partners* (Mercer-Mapstone et al, 2017), and two discipline-specific reviews for veterinary (Liatis et al, 2020) and health professional education (Barradell and Bell, 2021). It also includes papers that re-investigate former sources of data, such as Kaur and Noman (2020), who use the data from two previous papers to investigate basic need fulfilment. **Book reviews** relate to a sub-section of each issue of the *International Journal for Students as Partners*. **Editorials** also mainly feature in the same journal, although there are also two from *Teaching and Learning Together in Higher Education* that provide an introduction to student-faculty partnerships in Italy (Frison and Melacarne, 2017) and a summary of a symposium (Yakovchuk and Dvorakova, 2020).

To reiterate a point from the method, the search strategy was optimised for category 1 or 2 papers, so there may be other partnership literature under this category that was not retrieved.

Figure 5. Reasons for category 4 classification



The four key areas of focus

The key areas of focus were considered in line with the Advance HE Framework, which remains relevant as all studies fit within at least one area. The most frequent areas of focus ranked in order across categories 1-3 were curriculum design and pedagogic consultancy (CDPC, 58% of studies), learning, teaching and assessment (LTA, 56%), scholarship of teaching and learning (STL, 24%), and subject-based enquiry (SBE, 12%).

There was clear crossover and interconnectedness between the areas, and at times it was difficult to separate them out, especially as the partnership may focus on one area to impact on another. For example, it is difficult to consider the curriculum without also considering LTA as inherent components of that curriculum. In the same way STL, where the aim is to understand how students learn, has obvious links with LTA. Such crossover means that other authors may interpret the areas of focus and study methods differently to this review and, for transparency, category 1 was coded by one author, category 2 by another author and category 3 was shared. Despite the potential for the actual percentages to differ between authors, one trend that was clear across the categories, irrespective of raw percentage, was the higher proportion of papers focusing on CDPC and LTA compared to STL and SBE (Figure 4). Examples of the first two areas are highlighted below. These examples have been extracted to provide a broad overview of existing practices to help the reader identify something that may work for them in each area, rather than as a reflection of our opinion regarding quality over other papers. The CDPC list includes single and multiple stage partnerships, and both in-class specific activities and broader off-timetable examples. The LTA list includes examples of impact on assessment grade and empowerment, and a more teaching and learning related example aiming at promoting active learning.

-
- + Curriculum design and pedagogic consultancy
 - Category 1 – Bengston et al (2017): aimed to review the course's seminars, activities, resources and reading. A two-stage partnership with six students to first collect student views on the programme, followed by joint student-staff working groups. Subsequent outcomes were collected from a wider group of students.
 - Category 2 – Clark and Simpson (2020): aimed to increase students' digital literacy capabilities. Staff and students partnered to map digital literacy to the current curriculum.
 - Category 3 – Behrend et al (2019): aimed to explore perceptions of staff and students partnering to develop interprofessional education courses.
 - + Learning teaching and assessment
 - Category 1 – McDonald et al (2021): aimed to improve student assessment grades by co-creating resources using an electronic platform. A class-based partnership open to all students on the course.
 - Category 2 – Colson (2021): aimed to improve students' perception of empowerment over an assessment task. More than 400 students co-created assessment marking criteria.
 - Category 3 – Nahar and Cross (2020): aimed to develop new e-content to promote active learning. Thirty-five first year students partnered, with perceptions of six students shared in the paper.

STL and SBE were less represented in our retrieved articles. The former was represented by almost a quarter of the studies, which is a fair proportion across four categories. Therefore, the fact that this area was usually paired with another area, whereas CDPC and LTA were sometimes present alone, partially explains what at first appears to be a small proportion of the literature. Examples of STL are highlighted below, and cover the areas of communication, mentoring and course structure.

- + Scholarship of teaching and learning
 - Category 1 – Jay et al (2019): aimed to examine student communications to identify and intervene with misinterpretations and observe post relevance and detail. A partnership with near peer students who had taken the class previously.
 - Category 2 – Benkwitz et al (2019): aimed to implement a staff-student team to design and put in place a subject-specific peer mentoring programme.
 - Category 3 – Hamerski et al (2021): aimed to investigate the insights of learning assistants as a source of expertise for course structure development. A partnership with learning assistants who are undergraduate students supporting staff in the classroom.

However, SBE was noticeably low across the categories, although this is not to say that it is absent from the partnership literature. The low numbers here may be the result of the primary objective of this review, as the search strategy was designed to retrieve articles looking at student outcomes across a class/cohort beyond a small number of partners. This broad impact could arguably be more difficult beyond a student partner for this area as research team size is not limitless, explaining why there were more of this area in category 3. Also, where the research question was directed at the discipline rather than the partnership, the outcomes may be less likely to acknowledge student outcomes.

For example, we have partnered with students in research before, but the paper has been focused on the discipline with no consideration at the time to evaluate any benefits witnessed by the student(s) related to SBE partnership (Bulmer et al, 2018; Low et al, 2015; Northgraves et al, 2014; Peart et al, 2014; Peart et al, 2018; Shaw et al, 2017; Shaw et al, 2017; Shepherd and Peart, 2017).

Other limitations acknowledged in our method may also have resulted in some articles being omitted for this area, such as our focus on internal partnership as opposed to community or industry partnerships, and the authors not self-identifying the project as a partnership initiative may also have missed some articles. We also coded for SBE where it was explicit that partners were engaging in research through research-based or research-orientated activities, whereas it may have been within the activity but not made clear in the paper (eg research-tutored or research-led), or it may have been coded as STL if the research was pedagogy related. Examples of SBE in categories 1-3 are highlighted below to include partnership focusing on both internal and external partners, and both learning about and doing research.

+ Subject-based enquiry:

- Category 1 – Aranda et al (2021): aimed to research and develop scientist spotlights for a diversity project. A partnership with biology major students, with subsequent outcomes collected from a wider cohort.
- Category 2 – Mello (2017): aimed to increase student engagement with a module by PhD students partnering with staff to deliver taught workshops based on their PhD research.
- Category 3 – Johinke et al (2018): aimed to devise, implement and evaluate a project to improve student mental health and wellbeing (Therapaws). A partnership for 14 students who applied to join a staff research team.

To summarise this section, all four areas of activity were reflected in each category. It was sometimes difficult to distinguish between them so the percentage splits could be argued by another reviewer, but there was a comfortable gap whereby CDPC and LTA had a greater focus compared to STL and SBE.

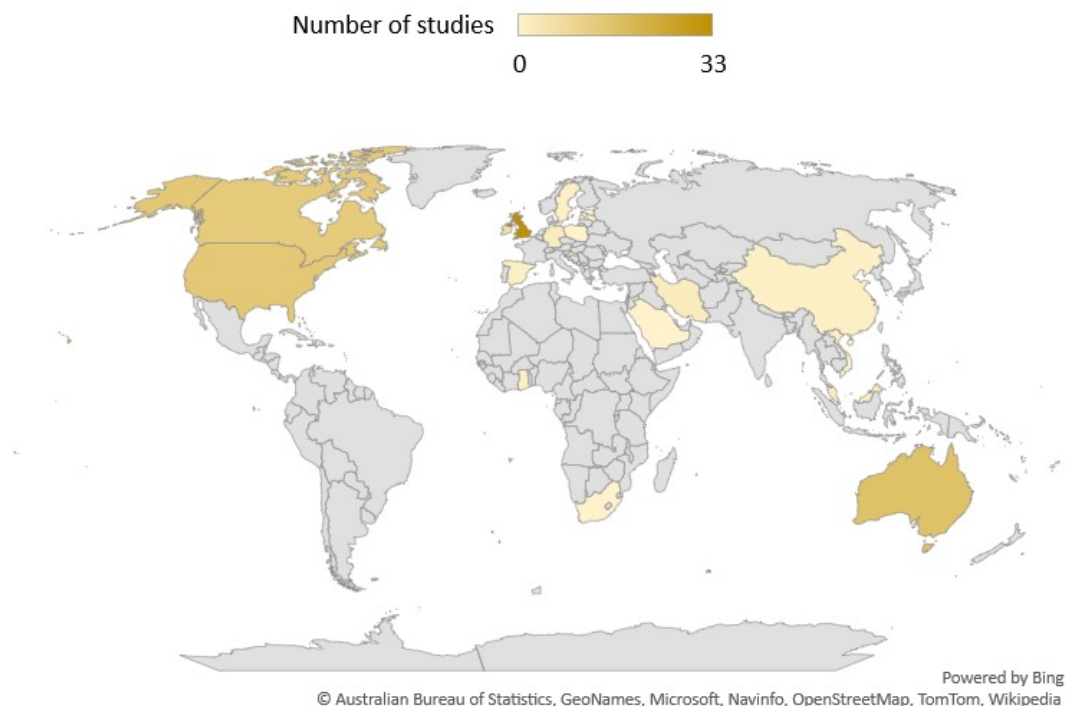
International reach of engagement through partnership literature

Figure 6 shows the geographical range of where English language articles offering primary data (categories 1-3) originated. Together, the UK (33), Australia (14), USA (13), and Canada (13) accounted for 81% of the literature base. Other countries represented in much smaller numbers are Ireland (5), Malaysia (2), Germany (2), Sweden (1), Spain (1), Vietnam (1), Israel (1), Ghana (1), Iran (1), China (1) and Hong Kong (1).

As authors from the UK, it is beyond our experience and expertise to comment on the apparent limited global focus on partnership and any potential barriers. It may be that international literature exists in other languages not identified in this review, as opposed to it not existing at all. However, partnership has been recognised as a western-centric practice (Kaur et al, 2019; Liang and Matthews, 2021), and the international translation of such practice has been discussed, particularly in relation to East Asia. Some authors attribute this to the culturally larger power distance between students and staff (Kaur et al, 2019) and assumed hierarchy (Dai et al, 2021). As an example, Ho (2017) describes the historical

context within which Hong Kong HE functions, with respect to the political and postcolonial environment, and the associated barriers between students and faculty that makes student engagement difficult beyond the consultation level. Liang and Matthews (2021) build on this in a review of literature, discussing that the traditional identity of teachers working in the Chinese HE system is that of an authoritarian knowledge holder, and that a good student is one who is hard working, with little emphasis on staff-student interactivity. However, these identities may be shifting as they are challenged by academics in the area, and educational reforms that promote more student-centred methods, perhaps as an influence of internationalisation (Liang et al, 2020). This is seen in practice too, as Ho (2017) reflects on 'small steps' to facilitate dialogue between students and faculty. Liang and Matthews (2021) also observed a desire for partnership when surveying 402 students and 85 academics from Chinese institutions, and a case study that fits category 3 in this review also reported perceived benefits for students at an institute in Malaysia (Kaur et al, 2019). Irrespective of the reasons, readers of this paper need to be aware that the primary data discussed is dominated by four countries and should interpret the findings with this in mind.

Figure 6. Country of origin of research articles presenting student primary data (categories 1-3)



Partnerships for equality, diversity and inclusion (EDI)

Authors often talk about ‘the student’ or ‘students’, which risks homogenising the student body without acknowledging different personal characteristics. An example is in the category 2 section where it is said that Benkwitz et al (2019) found social media to be a ‘safe’ form of communication, which may not be the case for all students. However, we acknowledge that we have used this language ourselves in this article. This is done in part to provide a consensus for the review, but also because there is often limited description of the student groups in papers, which can prevent such discussion. Authors adding this information in future will help understanding and provide a true equality lens.

Partnership literature related to EDI was not explicitly searched for, but it was identified as a recurring theme throughout the screening so relevant papers were kept for discussion. Therefore, it is possible that some texts were missed and the reader should not consider this section as definitive coverage, but an acknowledgment that there is a body of research in this area worthy of further reading and research. The retrieved articles have been discussed in line with the objectives of this review, grouping those with implications beyond the partner first, followed by those with a more specific focus on the student partners themselves, and with narrative articles with no primary data acknowledged in the spreadsheet that accompanies this review. Throughout this section we repeat the terminology used in the original paper, while recognising that language relating to personal characteristics and inequalities will vary across time, contexts and communities.

Much of the research that looks at implications for the broader student body is partnership with students to inform staff perspectives and practice. Such activity allows faculty to benefit from the diverse background of students, who can speak from their own experience (eg as an international student), but also recognise the impact on others from a different underrepresented group (Marquis et al, 2021). Initiatives that conducted partnerships in this way include Cook-Sather (2020), Cook-Sather and Des-Ogugua (2019) and Cook-Sather et al (2021), where students attended, reviewed and fed back on inclusivity in the classroom, and produced recommendations and development materials for staff. Lech et al (2017) intervened with a group of drama and performing arts students to promote culturocity with students through the medium of theatre. Hall et al (2021) partnered with students to intervene on decolonising the curriculum for humanities and arts courses using media eg podcasts, blogs and updating reading lists to be less white and eurocentric. There is minimal indication of the outcomes of these case studies, but other research focusing on decolonising the curriculum has collected some outcomes. Anthony-Okeke et al (2021) and Davis et al (2021) had similar objectives when reviewing a pharmacy and medical curriculum respectively. Both identified with student partners where the content required broadening to be more inclusive, with common examples being how conditions may present differently on different skin tones, where and why race may be a risk factor for a condition, varying the ethnic background in general case examples, or removing any mention of race altogether where it was not essential for the context of the case. Davis et al (2021) briefly described that students have found the revised resources beneficial, and Anthony-Okeke et al (2021) indicate that staff welcomed the heightened awareness and identification of where they may need to develop their own understanding. The general willingness for staff to adapt their teaching and

curriculum was also observed by Mercer-Mapstone et al (2021) and Cho et al (2020). However, there were also barriers, such as the fear of not getting inclusivity right, and inadvertently excluding others. Institutional barriers such as time to prioritise partnerships was also highlighted here and by others (Jones-Devitt et al, 2017). Barriers for students are also evident as Marquis et al (2021) identified difficulties such as it being simpler for some students: *“there are people who are very comfortable because of their privilege challenging what teachers say. Culturally that would not have been okay for me, coming from a lower class and coming from Black culture. It’s like you don’t do that. The audience is also difficult to separate from the task: how do you tell a white male professor who’s straight ... how this works when he is supposed to be the cognitive authority of the class and of his syllabus and all these things...?”*

One of the positives of the literature in the previous paragraph is how it can influence the education for the broader cohort, exposing students to backgrounds and experiences other than their own. A study that harnesses this opportunity in an area other than curriculum decolonisation partnered with students to develop a new level six module on special educational needs for an undergraduate education programme (Wright et al, 2021). Staff and students co-conducted a research project to understand the experiences of neurodivergent students who have studied in further and higher education, and of parents, teachers and teaching assistants of neurodivergent pupils across primary and secondary education. There were several outputs not detailed in the paper, but one defined example was an updated assessment more relevant for practice eg an ‘easy read’ document and a relevant case study. A final example for this section on updating the curriculum for the broader cohort relates to ‘queer pedagogy’ in an institution situated in a state in the USA associated with anti-LGBT media coverage (Wymer and Fulford, 2019). Not only did this study provide a platform for students to input into aspects specific to LGBT, but there was also a forum for students from other backgrounds to input their own experiences and understanding of discrimination into the conversation around intersections between different marginalised groups. The broad implications were an increased awareness of teaching staff to make spaces available for students to critique the curriculum, recommended texts and to reflect on their teaching practices.

The second part of this section acknowledges literature that aimed to use partnership as a way to improve inclusion for students from underrepresented groups, seen as important to give those students a voice (Cook-Sather, 2018b). Such a tactic is difficult and risky, though, as the reasons for students to choose or refuse to engage in partnerships is complex, and the term ‘partnership’ itself may be patronising as it does not acknowledge the power imbalance between underrepresented students and faculty (de Bie, 2022). As with those papers already discussed with a broader implication, ethnic diversity was again a recurring focus. This was for several reasons, such as providing an opportunity for skill development, networking and cultural capital to mitigate existing inequalities (Oputa and Cross, 2021), build confidence (Oputa and Cross, 2021), address awarding gaps (Ansley and Hall, 2019), and understand potential unique challenges for some students (Baxter, 2018). Both Oputa and Cross (2021) and Ansley and Hall (2019) created opportunities to consult on and be involved in conversations with faculty about curriculum developments, resulting in an improved sense of belonging and opportunities to facilitate relationship building. Also on a consultancy basis,

Baxter (2018) identifies the challenges that may be unique to international students, specifically Rwandan students in the USA in this example. Some of those were related to personal conflicts about whether to return home after their studies, their background being simplified to 'African' by some local students, and a sense of responsibility to represent their country. Pottinger et al (2021) initiated a virtual 'wobble room' for allied health students to support each other during the pandemic in response to some of the unique challenges experienced related to systemic healthcare inequalities while in the workplace, including access to personal protective equipment (PPE), different infection rates between ethnic groups, and behaviour change in Black and ethnic minority (BAME) communities. The key outcomes were a reduction in fear and increased confidence while on placement during this unprecedented time. In terms of level of partnership, Pottinger et al (2021) is ranked higher as it went beyond consultation, but how important this might be is questionable as, arguably, the positive outcome for these groups is more important than the activity. This is an argument that will be discussed further in the synthesis of findings, in terms of whether the process of the partnership, or the outcome of the partnership, is more important.

One element that has not been discussed in this section is how to diversify those who access partnership programmes with the aim to make them accessible to all students. This will be covered in the next section, which focuses on critiquing partnerships.

Critique of partnerships

Some of the challenges of student partnerships from the student perspective were indicated in the summary of category 3 literature, which is also generally representative of the category 1 and 2 data. As a brief reminder, these were ranked: (1) time, (2) negative emotions, (3) power/hierarchy, (4) lack of diversity, (5) conflicting expectations, (6) conflict to change, (7) sustainability.

However, there is also literature critiquing engagement through partnership as a practice, which needs to be acknowledged for balance. The simplest critique is that there can be a general attitude of partnership being a good idea, with a 'but' attached. Murphy et al (2017) explored this by looking at staff perspectives before and after a partnership project focused on assessment feedback, an area shown to be rarely used for partners in the participant pool. The initial perceived barriers were student engagement and the need for motivated and committed students. Pedagogic awareness, time, content awareness and regulatory body requirements were also barriers. Afterwards the staff spoke of benefits of 'making tweaks' to their practice, 'integrating student input' and having 'meaningful dialogue', but the 'but' remains unless there is a defined starting point. The barrier of the need for committed and motivated students raised by staff in Murphy et al (2017) is reinforced in a reflection from Ferri et al (2020). They reflect on a partnership that was initially rewarding (Karlsson et al, 2018) but then became a negative experience. Two students were selected to further develop the partnership from the initial project, with a monetary incentive, but the objectives were not fulfilled as the student partners left the project. Areas thought to contribute to where it went wrong were assuming that the student commitment, motivation and recognition of opportunities matched their own, that they did not take the lead on project management so as not to assume power in the partnership, and misplaced trust with no back up. This raises the point that all partners have the power

of exit and developing a true partnership with no level of authority or rules introduces an element of risk for staff. Indeed, risk can also exist for students if a staff-student relationship turns negative. Risk for students exists in other forms too, as observed by Deeley and Bovill (2017) and Pereira et al (2020), where students were at risk of making a co-created assessment more difficult than necessary for themselves. The issue related to staff authority in Ferri et al (2020) resonates with an essay by White (2018), who argues that authority in partnerships is a risk, albeit for a different reason. They propose that partnerships reduce teacher authority, which could result in distrust, counter to observations from others (Monico and Kupatadze, 2020).

Reading the full paper is recommended to appreciate the arguments in their entirety, but in brief there are three further themes to the argument beyond the inclusion element already discussed. First is the need to recognise that power dynamics exist in a relationship like that of a service user and service provider and using the term 'partnership' may be patronising or pretentious. Second is the limited discussion of emotions in the literature, which may enforce an expectation that a partnership will be positive, leading to anxiety in instances where that is not the case, or a student feels differently. Analysis of category 3 literature did identify this as a challenge, but the challenges were still not as common as the positives. Thirdly, student initiatives and activism arguably should be separate and independent to the institution to drive change, and partnership may be a compromise rather than commitment. The final argument is that of inclusion, which has been discussed in a previous section, but leads to questioning of who and what are student partnerships for? A marketing or development tool for staff? To enhance student outcomes of the cohort? To make a student partner more employable? And how can the opportunities to become a student partner be equal and equitable?

The evidence suggest that partnerships have benefits for the individual students who participate in partnership projects. One argument is that those students have chosen to be involved and therefore deserve the benefits or have been selected as a reward for achieving in a previous course (Hussain et al, 2019). Another argument comes from the EDI section of this review where targeted benefits for partners may be appropriate for student equity in underrepresented groups. However, Geraghty et al (2020) found that students involved in partnership were more likely to be aware of certain initiatives so, despite these arguments, there is a risk of extending gaps between student groups, and those who could benefit most do not or cannot participate. Mercer-Mapstone and colleagues write frequently on this topic of partner inclusivity, posing the question in 2019; 'Are institutional-level partnership opportunities available equitably to all students or staff?' (Mercer-Mapstone, 2020). Mercer-Mapstone and Bovill (2020) reviewed the make-up of 11 partnership schemes in the UK, finding that all schemes were available to all students. However, some aspects meant that while it was made available to all, it may have only been accessible for some eg those who have the time or privilege to commit without financial reward or formal recognition. In another paper, Mercer-Mapstone et al (2021) ask if partnerships therefore only engage the 'usual suspects', and if more work should be done to make them accessible for all. Some further reasons offered for a lack of diversity are the limited number of male role models in partnership activities, the student cohort being more diverse than the staff teaching them, difficulty in engaging students who do not see the relevance, and a suspicion that staff have pre-selected teams of students. The risk of unequal opportunities to become involved in

partnerships has also been recognised by Marquis et al (2018), who were successful in collecting perspectives of partnerships from both students who had and had not taken part in a partnership project. One of the key facilitators for participating in partnerships was the student's social network, where knowledge of and conversations with people who have done it act as a catalyst for participation. However, this can inadvertently reinforce the idea of the 'usual suspects' and closed circles. Indeed, some barriers for those not participating were perceptions of eligibility, confidence and awareness, which those in certain social networks would have been less likely to experience. The fact that the most common benefit associated with partnerships in the category 3 literature were themes of relationship building and networking exacerbates this and risks the students with the time getting ahead. Time was another barrier, with some students unable to commit extensive time to the partnership, especially where they had external commitments. Furthermore, time was the number one ranked barrier when analysing category 3 literature in this review. It raises again the question about whether the level of partnership is important, or if it is the reach ie are lower-level class-based partnerships on formally timetabled student time more accessible and inclusive and therefore more meaningful? Or are less accessible higher-level partnerships with the few more impactful for the many? This point also reinforces the primary objective of this review of investigating the impact on the cohort, rather than the partner alone, to be more inclusive with respect to understanding the effect of engagement through partnership on student outcomes.

A student perspective of the findings

From the perspective of a student who has not been involved in any formal partnership before, the idea of working together with partners to enhance learning and teaching has a strong appeal. Currently many students are paying increasingly higher fees for their higher education, compelling many to want to take greater ownership of their own learning. In this way, partnerships would allow a student the autonomy and confidence to make positive contributions to the student experience and the institution where they study. However, the time commitment this takes can be a challenge to overcome, with the benefits to employment potentially being the greater pull for students to take part.

This review focused primarily on papers in categories 1 and 2: (1) demonstrable impact for the cohort, (2) emerging impact for the cohort. As these two categories directly impact the student experience rather than providing benefits solely to the partner, papers in these two categories are of greater value from a student's perspective. With this paper aiming to look at the impact of partnership on the student rather than the partner, it makes sense to focus on these two categories.

While at a higher level of partnership the student has the potential to make a greater impact, lower levels of partnership are more inclusive to the wider student body by involving more students. High levels of partnership risk being selective to a certain type of student, with the opportunity not necessarily presented to all students equally; often opportunities to collaborate with staff are first presented to student representatives rather than the whole cohort. Then again, those students more likely to engage with a partnership will likely have higher attendance and more active participation in their programme of study so will be more aware of their programme's structure, teaching and assessment requirements.

Level one partnerships often come in the form of surveys or feedback forms, as was the case in Sutcliffe et al (2019), which the students fill out to provide their feedback. These level one partnerships are open to all students. However, as a student I know that the uptake of these is often relatively low, with students feeling that their feedback does not have an impact or isn't valued. Alternatively, there is a belief among students that if their feedback/input doesn't affect their year of study directly then it's not worth giving ie "any changes as a result of my feedback won't affect me directly, so why bother filling out the survey". Students' opinions on a module/programme are asked at the end of the programme, therefore any changes as a result of the feedback will primarily affect following years of study only, with current students rarely seeing the value in benefiting future cohorts. But these level one partnerships still have an impact on overall satisfaction of future students if the partners make changes to an assessment or ways of teaching as a result of the student voice. One benefit to level one partnerships is that they are easy to do, often requiring little time for both student and partner, and when actioned could lead to higher levels of partnership in future.

Level two partnerships are potentially more valuable to students. With greater involvement the student can provide more in-depth ideas around a certain issue, as was the case with the focus groups in Andrews et al (2018) or student training advisors in Brown and Velikov (2019). Students can devise strategies or solutions and take ownership of their learning at the involvement level. At level two, students are not only asked for their opinions on something but collaborate more closely on a specific solution or tool to better their own learning, such as in Inguva et al (2018) where students tested and

revised new activities for a chemical engineering course. This collaborative approach, especially when done as part of a taught session, does not take too much extra time for the student and allows them to feel greater autonomy over their own learning – something that is valued by many students. In the study by Johnston (2020), students had the opportunity to provide feedback on a workshop, while also suggesting improvements that lead to a re-structuring of the workshop material. Collaborating at this level of partnership is meaningful to students because, through this engagement, they feel valued, resulting in perceived benefits even if quantitative improvements to grades are not necessarily seen. I feel that this level of partnership is one of the most effective and impactful from a student's perspective as it requires relatively little time and effort from the student, but they still feel part of their own learning experience. Particularly valuable are tasks such as in Johnston (2020), where students played a key role in redesigning their own workshops.

Level three partnerships require a greater time commitment on the student's behalf. Doyle et al (2020) allowed their students to co-create learning materials, which enhanced the academic performance of this group. While this level of partnership, where the student is put in charge of their own learning materials, means they have autonomy, can learn in their own style and allows for peer collaboration, it is also time consuming. I, and many of the students on my course, would be reluctant to put this much time and effort into creating our own learning materials, even if we know that it improves our learning.

As with level three, level four partnerships allow the student to have even greater autonomy over their learning. An approach such as that of Bengston et al (2017), where the levels of participation were tiered, could be a good approach as it allows each student to decide just how much they want to participate in the partnership. These higher levels of partnership require more time commitment from the student, therefore fewer of them will want to engage in this. However, it does also mean that only students who really want to put in the effort to better not only their own experience but that of future students are collaborating in true level four partnership. This is also of benefit to the partner because the student will be more engaged if they have chosen to partake. Level four partnerships require a high degree of participation from the student, meaning that it often needs to be a paid position for it to be seen as worthwhile. This monetary incentive, while potentially attracting more students to engage in formal partnerships, might also result in some bias.

As Muñoz-Escalona et al (2018) discovered, student engagement in partnerships naturally decreases with increasing level of partnership. This is understandable, as higher levels of partnership require a greater time commitment from the student. Within my role as a student representative, I have found that students like to be informed of any changes made as a result of our feedback so that we know we are heard and valued. Being involved in a partnership allows the student autonomy over their own learning and to feel that their academic achievements are valued by staff. I echo the findings at the end of category 2: that for a student to feel that a partnership is worth their time, enhanced employability prospects are a common incentive.

The willingness to be involved in a formal partnership can be dependent on the discipline the student is studying. For example, courses within nursing, healthcare or architecture, that lead to a professional qualification, might attract the type of student generally more willing to work collaboratively as that is what their profession will require of them. These vocational courses also come with greater expectations of the student as they need to meet professional standards to qualify. Therefore, these students might be more likely to participate in a partnership that would not only enhance their own learning but also make them more employable, because it allows them to use that partnership as an example of teamwork and collaboration at prospective job interviews. I personally have found that, within my role as a student representative, students on vocational courses seem more willing to provide feedback and engage with the staff on their course than students on non-vocational courses. It is also possible that these vocational courses attract the sort of student more dedicated to furthering their learning within their subject area.

To conclude, when planning to introduce partnership at an institution, partners need to have a specific goal in mind. The levels of partnership require a varying amount of contribution on the student's part and, depending on what they want to achieve, the level of partnership needs to match this goal. From a student perspective, partnerships have the potential to increase autonomy over learning and improve the student-staff relationship by breaking down hierarchies, while also providing employability prospects for students. However, while partnerships provide benefits to the students' experience, partners need to keep in mind the time commitment these take and be proactive engaging students as partners.

Synthesis of findings

The objective of this review was to identify the effects of engagement through partnership on student outcomes, focusing on literature after 2016, with an emphasis on papers that considered impact beyond a small number of partners. Such research was sorted into category 1 and category 2, with the latter category omitting a pre-partnership measure present in the former category. Combined, these two categories reflect only 9% of the retrieved articles. The most common areas of focus within these categories were learning, teaching and assessment, and curriculum design and pedagogic consultancy. Outcomes included: student learning, achievement, satisfaction, engagement, sense of community, confidence and assessment literacy. Partnership activities themselves ranged from partnerships at a class/course level in timetabled time, students actively taking part at a class/course level outside of timetable time, and partnerships beyond course level.

The outcomes were almost all positive across all studies, with none presenting negative findings. There were examples of neutral findings, for example some papers in category 1 reported no improvement in assessment grades pre-post intervention (Aumiller, 2021; Bengtson et al, 2017). But original assessment grades were already high, leaving little scope for improvement. However, this does lead us to comment on the wide use of subjective outcomes across studies. Across both categories, objective measures were in the minority, making much of the data based on perception. This is not too different to many measures in education as outcomes are difficult to measure objectively. Indeed, one of the largest measures of course quality in the UK – NSS – is itself based on perception. Regardless, basing conclusions on perceptions is a limitation that readers need to take it into account, as is the risk of unintentional author confirmation bias when selecting supporting student quotes. Some studies negated this by using mixed methods, where wider perceptions were examined quantitatively to give context for the qualitative data. One could speculate about the risk of publication bias, too, as you could in any field dominated by positive research findings. One study to highlight here would be Inguva et al (2018), who observed negative findings for student satisfaction and achievement in the first year of partnership, followed by positive results in the second year of partnership. It leads us to wonder if there are other initiatives that were not pursued following a similar first year.

Outcomes in category 3, which were specific to the partner, were also mainly positive for the reasons ranked in the previous relevant section. Participation bias is a third form of bias possible here, in that those who volunteer for partnerships may be those with a preconception that it is a good idea before they start. The broader consideration, though, is whether there is equal opportunity to become a student partner, which is important to ensure equitable exposure to the perceived benefits. We discussed previously how even partnerships open to all students may be inaccessible to some who cannot commit to the extra-curricular time because of outside commitments such as work or caring responsibilities. Then there are the partnerships purposely only open to selected students. Some examples are to improve equity of opportunity by targeted recruitment of underrepresented or hard to reach student groups. Others, though, have restricted membership based on academic achievement (Hussain et al, 2019), which may extend gaps between students. This is not necessarily a criticism as there may be times when a particular type of student is advantageous because of the activity. For example, Hussain et al's objective was to impact on a subsequent cohort, so while the opportunity to partner was limited, the reaped benefits were broader for the next cohort of students.

It would also be hypocritical of us to criticise such an approach. For transparency, Emma was recruited to this review team after advertising the opportunity to students we knew we could trust and who we had an existing relationship with to increase the chances of a higher quality of work and reduce risk due to the project timescales. This brings us to a point alluded to within the EDI and critique sections of this report. Those facilitating partnerships must consider if the process or outcome of partnership is more important. In other words, if the aim is to partner with as many students as possible within a defined population directly (eg a class/module/course), then a lower level, more inclusive partnership may be most appropriate. Or a staggered approach where students can be involved but step off at different levels to still gain some benefit (Hanna-Benson et al, 2020; Peart et al, 2018; Rivers et al, 2017). On the other hand, if there is a broader objective to indirectly impact on a wider undefined student population (eg between departments or institutional level) then a higher-level partnership with fewer students may be more appropriate. For the latter, partnership initiators need to consider what impact they are having beyond the partner if they target partner recruitment and do not measure wider outcomes. If benefits are only witnessed by the partners, we need to make sure that opportunities to become a partner are as inclusive as possible.

Continuing with the theme of inclusion and access, we need to consider staff, too. The extensive examples of author perspective papers and theoretical articles can be useful to give a broad overview for somebody new to reading literature on engagement through partnership or embarking on such an initiative. However, the primary evidence to support partnerships can be more difficult to find, as illustrated by the smaller proportion of articles in categories 1 and 2. Moreover, we found it difficult to locate the desired information in some articles, particularly around the purpose of the partnership, the student role in the partnership, and how the results were analysed/generalised. This was usually because such information would be in different sections (eg partnership context in the introduction or methods), or a different paper if it was a further analysis/narrative of a longitudinal established partnership. Mercer-Mapstone (2020) reflects on an unintentional risk of a developing an 'inner-circle' in student-staff partnership research and practice. One way to address this may be to develop an agreed partnership method reporting structure to aid communication to a broader audience, and facilitate comparison between initiatives.

Due to the objective of the review being to evaluate the effects of engagement through partnership on student outcomes, the results are limited to peer-reviewed published articles. Where case studies or conference proceedings/presentations were identified, the lack of data made them ineligible for inclusion. Therefore, there may be good examples of impactful partnership initiatives not being shared in the peer-reviewed literature. Reasons will be varied but may include those staff involved not considering these activities to be research *per se*, and therefore not relevant for publication. Alternatively, staff in some institutions may not have the time to focus on external dissemination. To further develop understanding in this area, staff should be encouraged to disseminate their findings, and supported to ensure student outcomes can be evaluated.

Conclusion

Throughout this review, particularly in the synthesis of findings, we have been more critical of engagement through partnership than the findings perhaps deserve. Our critique is to give balance and raise awareness of potential risks of bias, especially in a topic with overwhelmingly positive research evidence yet valid criticisms such as equality of opportunities for students. However, it should not be discounted that the weight of findings in categories 1 and 2 are very favourable for the cohort, and findings in category 3 are very favourable for the partner. The findings of this review have been used to develop some recommendations for various stakeholders in the next section. They are written with the goal of supporting student engagement through partnership in practice and identifying good practice for researchers to further knowledge in the area. In summary, research evaluating primary student outcomes reflects a very small proportion of the literature base but is much in favour of engagement through partnership to improve student outcomes.

Recommendations

Policymakers and leaders

- + **Make quality assurance processes flexible:** quality assurance is important, but so is allowing teaching staff freedom to react to partnerships efficiently. Some of the class-based examples presented in this review would not be possible in some institutions with rigid processes for module change or moderating assessment tasks.
- + **Provide opportunities for internal funding:** several examples offered financial incentives for student partners, or funding to support other aspects related to the partnership. Institutional funding demonstrates a commitment to partnerships and rewards those involved, which may foster motivation to take part.
- + **Create external funding calls and encourage the recruitment of student partners in the project team:** category 1 articles, defined as evaluating changes in student outcomes before and after partnerships, represent only a small proportion of the literature. More of this research is required to demonstrate impact, but it is difficult and time consuming. Awarding external funding in this area will support efforts by generating esteem and a viable research-development route for staff.
- + **Encourage dissemination:** of both positive and negative findings either internally or externally to add to the knowledge base, support internal and external academic colleagues in a collegiate manner, and deliver recognition for the institution.
- + **Build a community of practice:** building a community will help share practice, evaluate findings and identify where partnerships may remain local or be scaled up.
- + **Reach underrepresented student groups:** EDI is high on the agenda for many for general good citizenship, but also for external awards such as Athena Swan. This review shares examples of how others have used partnership to support such work.

Researchers

- + **Measure impact:** track student outcomes to confirm impact and evidence the benefits of engagement through partnership for students, colleagues and leaders. Continue after publication to confirm a trajectory, plateau or diminishing of benefits. Doing so will also allow more objective measures such as attendance, retention and progression to be factored in. Continue also after the student has graduated to examine graduate outcomes.
- + **Use mixed methods:** less rich, quantitative data can provide insight from the wider cohort to set a context for qualitative findings. Working with others with different skill sets will allow for a more rounded evaluation of engagement through partnership initiatives.

- + **Consider routes of dissemination to reach a wider audience:** it is acknowledged by others that the number of academics researching or practicing in this area needs to be broadened. When writing articles, remember that the reader may not be an experienced researcher, or might be from a different discipline new to reading pedagogical research.
- + **Report on subject-based enquiry partnerships:** label such research as student-staff partnerships to increase visibility of this area of focus.

Teaching staff

- + **Give it a go:** everybody starts somewhere. The research is very positive, but don't be anxious if your experience is more negative or if the partnership does not reap rewards straight away.
- + **Pre-empt the common barriers and consider your position:** acknowledge that while it is a partnership, ultimately a member of staff will be in charge in most cases so there will be an underlying power relationship. Be transparent with students about what your motivations are, what you hope to achieve, why you think a partnership will help, what the student time commitment and remit is, and what the individual and wider student cohort are likely to gain. Have a back-up in case it goes wrong, or a partner exits the project.
- + **Think about why you are doing it:** do you want to improve engagement across your whole cohort? Use student input to support a broader issue? Increase the voice of a particular type of student? These and other reasons are all valid but knowing this at the start will dictate what level of partnership you initiate.
- + **Factor in member transition and project sustainability:** students are temporary members of partnerships. Everybody has the power of exit and students graduate. How will you keep longer-term initiatives going when this happens?
- + **Consider recruitment:** think about whether you are creating equal opportunities and are hearing voices that reflect the whole student cohort.
- + **Evaluate and share good and bad:** consider what you want to have impact on and set a measurable outcome at the onset to help evaluate the partnership.

Students

- + **Know what is expected of you:** ask questions, if it is a partnership then there should be no problem getting answers. Having a clear remit is best for all parties to facilitate the delivery of objectives.
- + **Consider why you are doing it:** what do you hope to achieve? Will simply being a member of the group help you achieve this, or do you need to set concurrent goals?
- + **Be prepared that you might not meet your personal objectives:** and that is ok. You will still gain the experience to reflect on to support you in future challenges. Talk to others in the group and ask staff for feedback, you might not realise yourself what you have gained.
- + **Manage your expectations:** the research is full of positive stories. But there are also negative views. Do not take it personally; if it does not work out, learn from it.
- + **Be aware of power:** in theory partnership places all members on a level but be aware that there are various levels of partnership and, in all likelihood, a member of staff will take the lead.
- + **Do not compromise:** when striving for change on a particular matter consider if a partnership is the most appropriate vehicle, as everybody's motivation may be different.

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Appendix 1. A summary of category 1 literature

Author	Country of origin	Level of partnership*	Activity of focus**	Partnership activity details	Findings in relation to student outcomes (and comparator)
Andrews et al (2018)	UK	2	A	Evaluation of assessment and feedback strategies from across the school of architecture. Students (n=21) provided feedback in focus groups about their interpretation of evaluation survey questions and the requirements for assessment tasks. Three tools were subsequently designed with iterative feedback from a group of students: (1) a lexicon for architectural based assessments, (2) a refined marking matrix, (3) improved formative assessment.	One supporting quote indicates that feedback was more positive and grade boundaries were clearer. Some subjective perceptions that staff are now more efficient (no data to support this). Overall satisfaction for assessment and feedback rose from 64% to 80% over a four-year period. Individual relevant questions around marking being fair and the clarity of feedback also increased by approximately 20 percentage points. Module satisfaction also improved from 50%/70% to 100%/98.9%
Aranda et al (2021)	USA	2	A and D	Sixteen biology major students and 11 faculty members partnered to author 'Scientist Spotlights' to be used in taught courses.	Students on relevant modules were asked about their perceptions of scientists pre and post intervention. Exposure to three or four scientist spotlights had a positive effect on student perception of scientists for areas such as stereotyping and reliability. The same was seen for the student authors themselves.
Aumiller (2021)	USA	3	A and C	Students worked alone and then in groups to collectively agree on three end-goals or objectives for their dance class course. An iterative series of activities was then embedded to develop an engagement and performance exam rubric.	The student perception of and final grade for the course were not different when comparing the previous year, year of, and year after the initiative. However, there are some perceived benefits for relationship building and reciprocity.
Bengston et al (2017)	Sweden	1 and 4	A and C	Stage 1 (feedback): six undergraduate chemistry students attended interviews to share their feedback on the programme. Stage 2 (partnership): six students applied and were employed to join the course development team (two were involved in recruitment). Seven one-hour meetings were convened with students, and four working groups were formed between staff and students; (1) seminars, (2) student activity, (3) course literature, (4) table of formulas.	Statistically significant increases in overall student satisfaction after the course development in response to 'this is a good course'. The areas contributing to this were communication between staff and students, appropriateness of difficulty level and workload.

Author	Country of origin	Level of partnership*	Activity of focus**	Partnership activity details	Findings in relation to student outcomes (and comparator)
Brown (2018)	UK	3	A and C	Eight engineering students volunteered to support the development of an introductory fluid mechanics module. Session 1 – Students selected a piece of text and wrote three or four questions and model answers. Session 2 – Activities loaded onto the VLE. Session 3 – Taught how to select practice exam questions. Session 4 – Practice questions/tests established as online quizzes with prompts for solutions/answers.	Both the partner students, who developed the materials, and the year 1 students who were the intended users of these materials were surveyed. The specific measures that were considered were module attendance, engagement with the various VLE activities, including MCQs, EI and PT, as well as performance indicators such as class test performance, exam performance and overall module performance. Partner students' performance improved compared to their first-year performance and average marks increased compared to the overall class performance which decreased.
Brown and Velikov (2019)	UK	2	A and C	Student partners, as student training advisors (STAs), supported professional services to refine an IT guided training programme. This was in response to reduced participation despite high satisfaction. There is little description of the specific role of the STAs, hence the partnership level rating of 2 may be an underestimation.	There was a non-statistically significant increase in student overall satisfaction from 94.74% to 100%. Notably there were no neutral responses for the new course, and there was a higher proportion of 'very satisfied responses' (47.37 to 81.08%, no statistical comparison). Total participation increased by 206.7%, and there was a 99.15% increase in individuals attending. Student perceived ability to apply the skills gained from the courses with no additional help increased from 7% to 57%.
Chase (2020)	USA	3	C	Twenty-one undergraduate STEM students on a research methods design module co-created the 20% of module assessment awarded for 'participation'. An agreed grading criteria was developed through an in-class iterative process.	Student perception of power towards assessment increased significantly pre to post intervention, but the attitude towards assessment did not change.

Author	Country of origin	Level of partnership*	Activity of focus**	Partnership activity details	Findings in relation to student outcomes (and comparator)
Doyle et al (2021)	Ireland	2	C	Third year undergraduate taxation module with 202 students enrolled (175 participated fully). Task 1: students drafted an MCQ question to contribute to a collated revision aid. Task 2: students created a three-min video to contribute to a collated revision aid (after staff screening for accuracy). There were five topics in total, and students covered a different topic for each task.	A three-way comparison was made between exam scores for questions related to each student's topic for task 1, topic for task 2, and the topics that did not form part of their tasks (control). Exam grades were significantly improved in the MCQ and the video data compared to control.
Duda and Danielson (2018)	USA	4	A, B and C	Staff and students from various subjects paired to review and re-design a course (biology, chemistry, education, fine and performing arts, law, nursing, and pharmacy science). Each pair participated in six formal meetings, three large groups and three individual, to facilitate the partnership. Some pairs met much more frequently.	Three examples of student outcomes are presented: Example 1 biochemistry: significant improvement in mid-term but no different in final exams between cohorts pre and post initiative. Example 2 general biology: bi-modal distribution of exam scores was absent post-intervention. Example 3 pharmacy lab: statistically significant increases in assessment scores post-intervention.
Gonzalez-Yebra et al (2019)	Spain	1	A	Twenty-five MSc students international sexology sciences. Forty UG students mechanical engineering. Stage 1 – experimental lab developed to deliver a practical teaching seminar – perception of UG students explored. Stage 2 – PG students the proposal was implanted and tested with a group of students from Ecuador who were taking a master's degree with part-time classroom attendance, and doing much of their classwork as synchronous distance teaching in I3DE (SL platform).	To measure the satisfaction and perception. A comparative analysis was also made between the results of their work (Stage II) and undergraduate results in a previous stage of the project (Stage I). In general, the students valued SL (sync learning) and the UAL-SEIS Island (virtual classroom) as an effective tool in the context of part-time in-person classes. The second stage of implementation was carried out with postgraduate students for later comparative analysis between different academic levels and types of teaching-learning.

Student engagement through partnership: a literature review

Daniel Peart, Penny Rumbold and Emma Fukar

Author	Country of origin	Level of partnership*	Activity of focus**	Partnership activity details	Findings in relation to student outcomes (and comparator)
Hanna-Benson et al (2020)	Canada	3/4	A, B and C	Students enrolled on a one semester third-year science education module (n=39) co-designed the syllabus through a five-stage model (defining, discovering, dreaming, designing and delivering). Student input increased through the levels of partnership, including engagement with relevant pedagogy literature in the later stages. Staff proposed a new design and students submitted a critique in the absence of staff. Some students then joined the research team to evaluate the initiative.	The impact of the initiative was evaluated via the analysis of written coursework, and two surveys administered at the start and end of the module (motivation via SMQII and engagement via SCEQ). Further qualitative analysis was attained via focus groups. Neither quantitative tool identified a difference pre-post intervention. The two main qualitative themes were 'growth' related to willingness to confront challenges, and 'awareness' related to the understanding of others and their own learning processes.
Huq and Gilbert (2017)	Australia	2	A	Three-year design period (2013-2015) through a facilitated workshop between staff, students and employers.	There was an increased completion rate in course evaluations in 2015, as did student satisfaction. This was attributed to the reduction of barriers between students and staff, and factors such as role playing and humour enhancing the learning experience.
Hussain et al (2019)	UK	2 and 3	C	A tiered approach to assessment and feedback development between staff, former students, and current students from a transnational education course (202 current students on electronics and electrical engineering). 1. Assessment i: assessment task discussed with former students. 2. Assessment ii: current students peer assess the work of former students, and former students then peer assess their perceptions based on their actual grade. 3. Feedback i: detailed feedback for current students from former students based on stage 2. 4. Feedback ii: instructor develops feedback videos based on feedback in stage 3 (clustered by performance for targeted support).	One hundred and seventy three current students provided feedback via a questionnaire and focus groups. The assessment, feedback, peer review and overall satisfaction were all perceived as beneficial by current students. The average grade was 9% higher than in the previous cohort without the intervention.

Author	Country of origin	Level of partnership*	Activity of focus**	Partnership activity details	Findings in relation to student outcomes (and comparator)
Inguva et al (2018)	UK	1-3	A and C	Partnership aimed to address student feedback in chemical engineering that the experiments were not perceived to be challenging or interesting enough, and that students found it difficult to link the experiments with the wider course or industrial context. Current and senior students were involved in various ways, including initial feedback, testing and revising of the new activities, and designing the activities.	For context, 2015 was the final year of the old activity, 2016 the implementation year, and 2017 the follow up year. Student satisfaction dropped in 2016 compared to 2015, which was attributed to teething issues with the activities. However, satisfaction improved 35% from 2015 to 2017.
Jay et al (2019)	Canada	3 and 4	B and C	Twelve to twenty student mentors were recruited to support first year biology students. The mentors were defined as near peers as they had taken the same course within the preceding two years. Their role was to work between staff and current students to moderate a course social media page. Specifically, they reported inaccuracies, incivility and dishonesty which could be addressed by staff during taught sessions. A sample of the students also contributed to the research evaluation.	Posts from 2013 (pre-intervention), 2014 and 2015 were scored for quality using a developed quantitative grading system. Factors determining quality included relevance, depth of comment and accuracy of comment. The quality of posts was significantly higher in 2015 compared to 2013 and 2014.
Johnston (2021)	Australia	2	A and C	Students in a second-year mathematics module took turns to work in small groups to peer lead a workshop. The teacher met with groups to discuss and check the materials before each session and was on hand to facilitate during the workshop.	A quantitative survey indicated the proportion of high scores for perceived understanding and confidence increased by 24 and 46 percentage points respectively after the partnership workshop. Positive qualitative comments included improved communication with peers, increased confidence in communicating with peers, and learning to teach is a good way to reinforce own learning.

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Author	Country of origin	Level of partnership*	Activity of focus**	Partnership activity details	Findings in relation to student outcomes (and comparator)
McDonald et al (2021)	Australia	2 and 3	B and C	Students on a first-year human anatomy course (n = 2095) could upload learning resources to an online learning platform called 'RiPPLE'. The resources could then be moderated by students, and an algorithm would identify any resources requiring staff moderation.	One thousand, three hundred and seventy nine students, 66% of the cohort, logged on to the RiPPLE platform. Of those, 54% (744) engaged by creating or answering a question. Student satisfaction improved on module evaluation questions related to feedback, and overall satisfaction. Students performed better in the study module compared to another module running in the same year without intervention. Average grades in the study module improved in the year of the intervention, whereas the control module remained the same as the year before. Evidence of a relationship between the number of RiPPLE questions answered and the student's final grade.
Sutcliffe et al (2019)	UK	1	B and C	BA Primary Education students were invited to share their opinions of feedback during level 5 and level 6 of study. In the year period in between the student responses were used to revisit assessment feedback processes.	Quantitative data was gained through a survey mimicking NSS questions related to feedback satisfaction: Q10 the feedback on my work has been timely. Q11 I have received helpful comments on my work. Results appear to be combined in a composite score that increased from 75-91%. Formal NSS scores increased from 60-84%

* 1 = consultation, 2 = involvement, 3 = participation, 4 = partnership.

** A = curriculum design and pedagogic consultancy, B = scholarship of teaching and learning, C = learning, teaching and assessment, D = subject based research and enquiry

Appendix 2. A summary of category 2 literature

Author	Country of origin	Level of partnership*	Activity of focus**	Partnership activity details	Findings in relation to student outcomes
Bell et al (2019)	Australia	3	A and C	Four student partners partnered with staff to revise a film studies course before its next delivery, focusing primarily on assessment. Part of the partnership consisted of student partners trialling some of the new materials before implementation with the rest of the class.	The new assessment materials and tasks received favourable reviews from the student cohort for engagement, accessibility and understanding/learning. Student partners perceived benefits related to gaining collaborative experience (employability links), and a new insight into the course design process.
Benkowitz et al (2019)	UK	1 and 3 (maybe 4)	B and C	Initial work gathered the views of 12 students regarding an appropriate intervention in response to learning analytics analysis to support 74 students in the areas of sport; health, youth and community work; and English. A staff-student team designed and implemented a subject specific peer mentoring programme. When a student was identified as requiring support a student mentor would contact them.	Mentors and mentees were invited to focus groups and interviews. The four main themes of the findings were perceived improvements in: 1. Communal-habitus – helped with the transition to HE 2. Confidence – mentees felt more confident asking peer mentors and using non-traditional methods eg WhatsApp 3. Engagement 4. Demystification/humanisation – understand how HE worked
Billet and Martin (2018)	Australia	2	A	Three cohorts of sociology students contributed to in-class discussions regarding content relevant to their curriculum, redesigning activities relating to group selection of topics/ topic content and helped design online material for delivery.	Focus group analysis identified that students benefited from the curriculum redesign as it promoted deeper learning and engagement.
Blau and Shamir-Inbal (2017)	Israel	3	A, B and C	The delivery of an online course with 54 education students was adapted to allow students to shape the delivery of learning materials. They had permission to edit and enrich materials on the course website, lead synchronous sessions, and guide asynchronous discussions/catalogues of materials.	Students reported benefits related to gains in deep learning, innovative course design and instructional methods.
Chilvers (2021)	UK	2	A	Eighteen inclusive arts practice students, alongside staff, were involved in redesigning course module evaluation processes.	The main benefit was the enhancement of student learning as the students felt more autonomous and reflective because of the embedded module evaluation activities.
Clark and Simpson (2020)	UK	1	A and C	Students and staff on a sociology course developed a partnership to map digital literacy to the current curriculum, to later explore digital capability (n=104).	The digital literacy/capacity of students assessed via a self-efficacy questionnaire improved over the course of the degree.

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Colson et al (2021)	Australia	3	C	400+ genes and disease online students co-created a group project assessment task, where students co-created aspects of the marking criteria.	Student responses related to perceived sense of empowerment over their assessment task demonstrated that 71% of students were in agreement with this.
Deeley and Bovill (2017)	UK	2	C	Thirty-three social science students collaborated with course staff to co-create various elements of an essay summative assessment, including essay titles, marking criteria, formative self-assessment, peer review of formative assessment.	Twenty seven students were included in the analysis which incorporated an exam practice questionnaire, anonymous critical incident questionnaires, partnership evaluation questionnaire, and students' self-assessment of their essays. Key findings were related to risk, enhanced motivation and engagement, and development of a learning community.
Keeling et al (2021)	USA	3	A and C	Three student partners redesigned an English course curriculum for a future cohort of students.	Two students enrolled on the course wrote diary entries, completed a questionnaire related to their thoughts about the course and were invited to interviews. Students commented that the class was helpful, engaging and meaningful.
Kek et al (2017)	Australia	1 and 3	A and C	The group project was made up of two student partners and four academic staff. The two students lead a closed Facebook community to support 400 early childhood, primary, secondary and vocational education and training students' learning.	The main outcome/s for the student cohort were an enhanced feeling of confidence in asking questions, sharing of learning and building a student community. Student partners benefited as they developed their own leadership skills.
Kiester and Holowko (2020)	USA	1 and 3	A and C	The partnership was between one staff member and one student, who worked together to design a sociology course in its entirety (select readings and video content, design assignments, create in-class activities, and build quizzes and exams).	Two groups of students (n=157) evaluated the e-learning resource via a Likert scale based online survey in terms of its acceptability as a learning resource. There was very high acceptability (agree and strongly agree to the question related to understanding of the topic) from the majority (n=125) of students. The student partners benefited as they felt that they developed essential transferable employability skills.

Author	Country of origin	Level of partnership*	Activity of focus**	Partnership activity details	Findings in relation to student outcomes
Mello et al (2017)	UK	2	C and D	Twenty-one student peers contributed to the delivery of workshops during a bioinformatics course, which also involved six staff members. The student partners talked about their PhD research to try to encourage better understanding of the potential application of bioinformatics tools in students' research projects and enhance their engagement with the module.	Eighty-eight students completed a quantitative questionnaire which identified 78% of the wider student cohort agreed or strongly agreed that they engaged with the module and that the involvement of student peers was beneficial in terms of them understanding the discipline content (87%). The student partners felt they had developed improved employability skills and a better understanding of the subject area too.
Monico and Kupatadze (2020)	USA	3	C and B	Human service and public health studies students were involved with course design alongside staff members.	Thirty-six students expressed perceived improved learning, self-awareness, and engagement with the educational material as a result of students' partnership and collaboration with faculty and staff.
Muñoz-Escalona et al (2018)	UK	1 and 3	C and D	Two hundred and thirty-two mechanical and aerospace engineering students were involved in developing exam questions to be used as part of the class assessment with a weighting of 6%.	All students completed a survey to explore levels of satisfaction and engagement after contributing to the exam questions. In terms of engagement, 80% of the students felt fully engaged and were satisfied with the learning experience, while 74% believed their exam performance benefited from conducting this activity.
Rivers et al (2017)	Australia	1-3	A and C	Two hundred students enrolled on a molecular genetics course were invited to contribute to the co-creation of assessment questions, ownership of the content, and using it productively to apply and analyse course material.	Level of engagement (over three years) with the various co-creation tasks varied between 27% (writing exam questions), 31% (commenting on questions) to 73% (responding to peer questions). Those students that chose to take part indicated they felt greater responsibility for their own learning through improved assessment literacy.
Scott et al (2019)	USA	1 and 3	A	A medical school's education representatives (ed reps) programme was developed to foster partnerships between faculty and students for curricular development.	Ed reps had a positive impact on the curriculum, with 91.0% of students in agreement.

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Sharma et al (2021)	Canada	1 and 2	A	Two students on an introductory animal physiology course worked with faculty and two librarians to develop an e-textbook aimed at supporting the wider student cohort.	Four hundred and fifty-seven students who were using the updated e-textbook took part in a survey indicating that the interactive components of the e-textbook were beneficial to their learning experience (77.1%) and that it aided in testing their conceptual knowledge (84.4%). However, responses to an open question were more balanced with 43% of students suggesting they were "satisfied" with the new tasks in the e-textbook and 44% expressing "no opinion."
Woods and Homer (2021)	UK	1 and 2	A	Arts and humanities staff and students co-designed an online/digital resource to support induction activities of new students.	51.5% (n=375) of new students accessed the online resource before starting university. The authors concluded that the key to new students being engaged with the resource was due to the co-design aspect.

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