To What Extent Do Co-Curricular Programs Reduce Inequality: A Review of the Literature

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Abstract

This study explores the link between co-curricular activities (CCAs) and educational opportunity through a literature review and two interviews with third-party providers. The authors explore philosophical justifications for educational priorities and use both international and local models of CCAs to investigate how such activities can mediate inequality in the current UK school system. Furthermore, they outline the varied outcomes of CCAs, assessing differing impacts on academic and soft skills observed in the literature. The two interviews with academic co-curricular providers in the United Kingdom offer new insights that refine our understanding of the intellectual, social, and psychological dimensions of student outcomes and provide insight into the complex interplay of group dynamics, economic accessibility, and teaching quality needed to sustain an effective co-curricular program for underserved students. The authors highlight gaps in the literature related to the causal mechanisms behind co-curricular benefits, and the related analytical challenges caused by unequal participation in co-curricular activities across socioeconomic groups. The authors also offer a blueprint for further research that directly incorporates youth voices and compares different dimensions of systemic inequality. Finally, they recommend that teachers, leaders, and policymakers can help address educational inequalities by tackling student engagement and the socioeconomic barriers to co-curricular participation.

Introduction

Co-curricular programs in England are plentiful and varied, especially in fee-paying schools, and are offered in all schools to some degree. However, financial and social barriers often limit access and program quality for the poorest students (Donnelly *et al.,* 2019), reinforcing inequality in educational outcomes. This study aims to investigate the impact of co-curricular programs on inequality of educational outcomes in England. Co-curricular, or extracurricular, activities (abbreviated CCAs) are not consistently defined, but we will consider them to include all activities outside the school curriculum intended to promote skill development, academic or non-academic (Sullivan, 2018).

Many factors contribute to unequal teaching quality and learner outcomes in the UK, including inadequate resources in students' home lives and teacher avoidance of underprivileged districts. However, key recent contributors include an 8% austerity cut to state school spending from

2010 to 2018 (Donnelly *et al.,* 2019) and the 1988 Education Reform Act, which allocates funding to state schools based on applications received and encourages oversubscribed schools to prioritize students within a geographic "catchment area" for admission. This system, combined with the increase in admissions-selective academies and blurring of catchment area rules, produces cycles of austerity for underperforming schools as families which can afford to seek education elsewhere do so (Harris et al., 2007; Singleton, 2011).

This system impinges on the very co-curricular programs which can help remediate inequality (Donnelly *et al.,* 2019). The importance of co-curricular programs in mediating academic success (Nelson, 2017), school engagement (Davalos, Chavez and Guardiola, 1999), and mental health (O'Donnell *et al.*, 2023) is well documented in previous literature. However, the relationship between socioeconomic inequality, inequality of program access, and inequality of outcome remains understudied, and systematic accounts of the causal mechanisms behind co-curricular impacts are hampered by methods of data collection that can only capture correlation (Shulruf, 2010). In this study, our aim is to summarize previous research on the role of co-curriculars in reproducing educational inequalities and explore how programs can most effectively remediate inequalities. This study will combine a thorough literature review, which will cover co-curricular impacts across a wide range of socioeconomic contexts and summarize the pedagogical philosophy behind the concept of educational equality, with two interviews with English CCA providers about the practical impacts of co-curricular services for disadvantaged youth.

Methods

This study combined a detailed literature review with two semi-structured interviews to explore how co-curricular activities impact student outcomes and educational inequality in England.

The literature review focused primarily on peer-reviewed academic articles from the last 30 years, with exceptions for foundational texts in pedagogy which still hold significant relevance today. We found our sources by conducting systematic searches on Google Scholar, using keyword combinations like "extracurricular," "cocurricular," "educational inequality," "UK," "primary school," and "secondary school." To broaden our source pool, we also looked through the reference lists of various articles, which led us to frequently cited studies that underpin the field.

To deepen our understanding of the findings from the literature, we carried out two semi-structured interviews with professionals in the co-curricular education sector. We began by cold emailing 24 third-party co-curricular providers in England that offer services across different areas, including sports, arts, and STEM. Two of them responded positively and agreed to participate in 30-minute video conference interviews. We prepared interview questions by listing key hypotheses about student outcomes in the literature, as well as literature gaps in the application of theoretical pedagogies to co-curricular programs. We combined these topics into a series of open questions to elicit narrative answers linking philosophy, implementation, and observed impact together.

We recorded the interviews and analyzed them thematically in NVivo. We coded passages by positive academic and non-academic outcomes observed in order to spot recurring patterns and viewpoints, which we then compared with our literature findings. Consent for publication was

obtained by emailing interviewees, with the understanding that findings would be anonymized and consent could be rescinded at any time.

By combining the literature and interview data, we gained a richer understanding of the intricate relationship between co-curricular involvement and educational disparity within the UK context.

Literature Review

Theoretical Frameworks

The current state of education in the United Kingdom is characterized by a significant focus on behavior management (Condliffe, 2023), a narrow curriculum, and a high-stakes testing culture (GOV.UK, 2014). Career progression for teachers hinges on student exam performance, and there is immense pressure to maintain student compliance. To meet this goal with limited resources, behavior modification is increasingly prioritized over socio-emotional education within schools (Condliffe, 2023). Educational policy thus hinges on a predetermined concept of efficiency that largely displaces questions of values, dialogue, and student-teacher partnership. Nonetheless, achieving equality in educational outcomes requires a clear conception of which outcomes are valuable, so critical, value-laden questions of pedagogy must shape co-curricular research and design.

The field of marginalized youth pedagogy is underpinned by the work of Paulo Freire, the director of Brazil's National Literacy Program (1963-1964). His theory emphasizes empowering oppressed individuals to intentionally transform the world ("praxis") through shared reflection and collaboration with others ("dialogue"). Knowledge, though objective, can only be found through collective inquiry, and Freire observed that capitalist school systems structurally deny marginalized youth the capacity to participate in this shared questioning. For Freire, illiteracy did not cause other inequalities within a system of fair competition; it was the consequence of underlying socioeconomic power structures perpetuating themselves (Roberts, 2000).

To remediate this, Freire began his literacy instruction with wordless depictions of the creation of culture, such as vase painting, aiming to empower students to recognize their human potential to shape as well as consume knowledge. In later stages, he chose phonetic substitution exercises that required creativity and demystified the structure of Portuguese, using example words pertaining to daily life and class struggle in 1960s Brazil. This "problem-posing" model aims to produce a contestation of different perspectives on societal structures, rather than a monologue, and actively rejects both laissez-faire pedagogies that lack shared goals and authoritarian pedagogy that suppresses student disagreement.

Applying Freire's pedagogy to co-curricular activities in Britain, with its distinct culture and differently developed class system, does introduce some intellectual risk (Roberts, 2000), but Freire derived his views on human emancipation from dialogue with educators worldwide, including in highly-developed countries (Roberts, 2000), and the inequalities, both economic and sociocultural, that motivate his vision exist throughout the UK today (Windle, 2021). A Freirean vision of co-curriculars would recommend student-led activities tackling shared challenges, from youth-directed volunteer projects to collaborative mathematics investigations. Throughout his work, Freire emphasizes that objects of study must not be

presented as the exclusive property of the ruling classes, for students to passively consume. This was so vital for him that he even chose to avoid pre-written literacy primers with the poorest students (Roberts, 2000). Thus, co-curriculars must cultivate a space where pupils can imagine themselves as full participants in the academic, athletic, or artistic realm in the future. The costs of neglecting this issue are well-documented even in developed nations. Black and Hispanic students at majority-white schools in the USA took fewer AP (A-level equivalent) courses than those at majority-minority schools, and many cited low self-esteem and cultural stereotyping of scholarship as an explanation (Carter, 2016). Within the UK, a sense of cultural exclusion from Oxford University contributed to the escalation of conflicts over joyriding into the Leys riots of 1991 (Windle, 2021). Freire's efforts to democratize inquiry, though crafted in the Global South, remain vital elsewhere.

Another key progressive pedagogue is Gert Biesta, who emphasized psychological aspects of social transformation over the problem-solving elements Freire favored. Biesta, former president of the Philosophy of Education Society USA, centered the cultivation of an independent capacity for individual agency, via subjectification. Subjectification, from Rancière and Levinas, consists in developing moral responsibility through the ability to *separate* oneself from pre-existing roles and influences (Biesta 2016; Guillemin 2024). Biesta connects subjectification to his unique picture of emancipation and democracy, in which a subject gains equality by assuming she is equal to others and testing that assumption by negotiating coexistence across differences. Hence, student-student interaction is deeply political, not purely developmental, and must be allowed spontaneity.

Both Freire and Biesta equate education to emancipation from unjust socialization. By contrast, Roger Scruton, in his essay "Expressionist Education," argues that what he calls expressionist egalitarianism—the focus on bringing out each student's equally valuable true self—is a perilous venture with unintended consequences. He worries that the curriculum relevance movement treats a child's current content preferences as fixed "needs," and argues that coercion is necessary for students to value objectively necessary skills. Building on his focus on core curriculum and discipline, Scruton claims co-curricular activities are unimportant in struggling districts. This is empirically dubious, since co-curricular involvement is associated with higher performance and school engagement in under-resourced communities in the USA (Davalos, Chavez and Guardiola, 1999), and the prominent role that networking with faculty plays in producing these benefits suggests that these effects are not reducible to selection bias (Broh, 2002). Despite cultural differences, both England and the USA have similar education systems and socioeconomic inequalities in students' social networks (Donnelly *et al.,* 2019; Nelson, 2017), suggesting that the USA experience may be achievable with co-curriculars in England as well (Nelson, 2017; Donnelly *et al.,* 2019, Harris *et al.,* 2025).

Hence, a synthesis of Biesta, Freire, and Scruton suggests that co-curricular programs should emphasize active peer collaboration and student-teacher dialogue. Programs designed this way are highly effective for addressing gender-based exclusion from STEM in the United Kingdom (Watermeyer, 2012), and are clearly achievable within the English educational culture. Combining this evidence with the insights of theorists, future co-curricular provision in England should emphasize team activities facilitating organic socialization, patient teacher guidance, and creative problem solving.

Academic impacts

The benefits of co-curricular activities can be divided into two core groups: academic and soft skills. The first encompasses test attainment, classroom engagement, aspirations or achievement of higher education, and broader cognitive skills (namely numeracy and literacy). These are often perceived as the most measurable benefit of co-curricular activities (CCAs), and particularly significant for English students, as national tests are weighted heavily for university admissions and the professional sector. Academic outcomes in Britain often reflect wider social stratification, with the average Attainment 8 score of students on Free School Meals being 34.8/90, while their non-FSM counterparts have an average of 49.6/90 (GOV.UK, 2024). As a result, academic debate on co-curriculars largely highlights their current and projected academic impacts as tools to reduce inequality.

Though consensus on how effects are distributed remains elusive, many studies suggest an overall positive association between co-curricular activities and academic achievement. For example, while participation in both sports and non-sports clubs appears to positively influence future educational attainment (Fredricks and Eccles, 2006; Robinson, 2024), other studies find that participants must be in the American third grade (equivalent of Year 4) or older for this to be significant (Carbonaro and Maloney, 2019). Certain academic skills, also, seem much more resistant to improvement than others. Sports participation for students of low socioeconomic status (SES) yields notable improvement in maths, whereas reading ability—which is proposed to be largely predicted by home life—does not follow this pattern of improvement (Covay and Carbonaro, 2010). How these achievement effects impact academic inequalities remains under-investigated. UK data is scarce and, while Palou *et al.* (2024) conducted comparative case studies across Europe which suggest that CCAs may amplify class inequality in academic skills, they note that they did not control for differing levels of participation across class (or the institutions that produce these discrepancies), a topic we will further investigate.

Another key gap in the literature is the lack of clear causal mechanisms explaining the positive association between co-curriculars and cognitive skill development (Robinson, 2024; Shulruf, 2010). Indeed, further research must be undertaken to establish a strong causal relationship between CCAs and academic improvement.

Soft Skills

Co-curricular activities promote educational equality by fostering the development of soft skills: personal or relational attributes like leadership, work ethic, and resilience that aid in the effective execution of complex tasks. These are complementary to hard skills, which are task-specific competences (Feraco *et al.*, 2022; Cimatti, 2016). Educational policies remain focused on the development of hard skills, despite the vital importance of soft skills like time management and attention for both "hard" academic learning and employability (Donnelly *et al.*, 2019). The UK job market allegedly faces a soft skills deficit (Donnelly *et al.*, 2019) as employers increasingly select candidates based on soft skill development, and, in the similarly post-industrial USA, controlling for soft skills reduces intergenerational economic inequalities by 13% (Lleras, 2008). This is likely because soft skills are learned through experience and hence contingent on young people's access to demanding opportunities and their social capital, or network of productive relationships, both of which are significantly dictated by SES (Broh, 2002).

The relationship between soft skills and academic achievement is understudied but broadly positive. Self-regulated learning (SRL)—the capacity to effectively evaluate and refine one's learning strategies (Mammadov and Schroeder, 2023)—is a key soft skill which can be

directly related to academic outcomes (Richards, Litman and Roberts, 2013; Feraco *et al.*, 2023), though many soft skills, like adaptability, only have significant impacts when mediated by SRL or others. The Education Endowment Foundation and Cabinet Office found a strong correlation between academically oriented soft skills (motivation, perseverance, etc.) and better academic achievement (Gutman and Schoon, 2013), though there remains significant uncertainty about how this is mediated by impacts on cognitive ability and emotional regulation (Feraco *et al.*, 2023). Operationalizing these insights into optimal soft skill education will require further research on the causal mechanisms at play.

Though the potential for teaching soft skills remains understudied, current scholarship is promising. Soft skills are learnable, and participation in CCAs is positively correlated with the development of soft skills (Palou *et al.*, 2024), from resilience to creative problem-solving to confidence in leadership positions (Fakhretdinova, Osipov and Dulalaeva, 2021). These developmental benefits are well-substantiated empirically. A university-level co-curricular intervention yielded strong improvements in communication skills, followed by intermediate-strength effects on adaptability and decision-making (de Prada Creo, Mareque and Portela-Pino, 2020). Also, children who participate in more co-curricular activities have higher civic engagement in adulthood (Donnelly *et al.*, 2019). However, different types of co-curricular activities impact soft skill development differently. UK data is limited, so data is taken from other culturally similar Anglophone service economies. This topic is less dependent on financial accessibility, so some variance in funding models is tolerable. Meta-analysis of outcomes in the USA showed that performing arts activities had the largest effect on identity and self-esteem, sports had fewer links with academic achievement, and pro-social activities, such as volunteering, showed the most positive influence (Lewis, 2004). However, in more recent research, sports are most strongly linked to improved mental health and increased school attachment in Australian adolescents aged 12–15 (O'Flaherty *et al.*, 2022). Similarly, a Canadian study found that the addition of CCAs significantly improved mental health and peer belonging among a sample of 7th-grade students in British Columbia—but only when sports were included (Oberle *et al.*, 2019).

These benefits, though less quantifiable than test scores, are no less vital. Soft skills are a key mechanism by which CCAs improve academic performance, and they have strong employment value independent of academics according to a study conducted in the USA, a post-industrial service economy like the United Kingdom (Lleras, 2008). Thus, co-curricular programs should not be designed to narrowly maximize academic instruction but should also aim to cultivate comprehensive skills for professional and personal success which are key in academic environments. To address intergenerational inequalities in soft skills instruction, making well-designed CCAs accessible to all students can promote greater equity and long-term learner outcomes.

International models

Analyzing global research on CCAs provides crucial background information for assessing the potential and constraints of CCA provision in England. The institutional support for CCAs varies across national borders in Europe, providing a larger and more easily studied analogue to district-to-district inequalities in England (Robinson, 2024). Studying an array of different national contexts allows us to decompose the structural, cultural, and policy-driven factors that influence CCA access and results, though economic, ethnic, and pedagogical context must be considered when interpreting findings. Comparison can also demonstrate how more equitable CCA provisions could be implemented in practice.

In their comparative analysis of European CCAs, Palou *et al.* (2024) demonstrate that school-based CCAs can significantly improve non-cognitive skills, but this can magnify inequality if education is not comprehensive, as in Barcelona. However, accessible programs can close class gaps. In Finland, where free in-school co-curriculars are widely available, socioeconomic inequities in soft skills are nullified by co-curricular participation.

Outside of school, Finnish youth clubs supported by municipalities foster students' social confidence and civic engagement (Kiilakoski and Kivijärvi, 2015). While it is difficult to determine the effect size these policies would achieve in the UK, given the significantly more egalitarian economic and classroom structures of the Nordic nations (Taneja-Johansson and Powell, 2024), this example is useful as a proof-of-concept for an effective and equalizing co-curricular scheme in a highly-developed service economy.

Further evidence that CCAs promote identity development and psychological well-being in underserved communities can be found in studies on Australia, where economic inequality is comparable to the UK (Gini Coefficient by Country 2025, no date). According to O'Donnell *et al.* (2023), CCA involvement, especially in underprivileged communities, has a major positive impact on students' mental health and sense of school belonging. A subsequent study by O'Donnell *et al.* (2024) emphasizes how CCAs help underprivileged youth make up for deficiencies in formal education by providing safe social spaces, peer support, and mentorship.

However, disparities in CCA access can significantly curtail and even reverse these benefits. Alongside cost-related barriers, privileged students are more likely to participate in CCAs consistently over several academic years, which exacerbates the cumulative advantage (Meier *et al.,* 2018). Donnelly *et al.* (2019) note that unequally available CCAs not only distribute benefits unequally but create the social signifiers of class itself. Cultural capital, such as knowledge of music, theatre, or debate, only improves young people's social mobility as a signal of desirability to institutions (e.g., university admissions), according to research across European and North American contexts, and this signal derives its value from scarcity. This realization is consistent with Bourdieu's reproduction theory, which states that education can serve to reinforce pre-existing advantages by socializing students of different classes to fill their inherited roles (Donnelly *et al.,* 2019; Nelson, 2017).

Even beyond intrinsically exclusive forms of cultural capital signaling, whether the benefits of CCAs could be universalized via broader access has been regularly questioned, though evidence from broad and low-achiever-selecting research is promising. Due to the scarcity of controlled studies, it is unclear whether observed correlations could be impacted by selection bias, with more highly motivated or well-prepared students participating at higher rates. However, access to CCAs is consistently associated with better outcomes at age 21 in the United States (Robinson, 2024), and US datasets like the National Longitudinal Study of Adolescent to Adult Health (Add Health) demonstrate that, even after adjusting for background variables, regular involvement in CCAs predicts increased academic engagement, decreased dropout rates, and improved test scores (Eccles and Barber, 1999; Mahoney *et al.*, 2003). Nelson (2017) offers a comprehensive account of the socio-emotional benefits of after-school programs in the United States for Latina youth already battling poverty and gang involvement, demonstrating that even young people with limited resources and social capital can benefit when CCAs are community-based and culturally sensitive.

There are still gaps in the application of the wealth of international evidence to the UK context. Studies that systematically compare the experiences of rural youth or ethnic minorities across national boundaries are scarce, and even fewer studies examine impacts on migrant families or students with disabilities. Research on minorities in the USA is promising: CCAs lessen the impact of discrimination on academic self-concept for African-American youth (Billingsley and Hurd, 2019), and Latina youth benefit disproportionately from CCAs during personal crises (Nelson, 2017). However, significant differences in racial and economic dynamics between the USA and the UK merit dedicated comparative work to assess how best to support marginalized British students.

In addition to limited scope, there is a strong emphasis on quantitative research in the current body of international literature. While these studies effectively evaluate program accessibility and impacts on quantifiable skills, they frequently ignore the qualitative aspects of CCA experiences, such as joy, identity, and aspiration, that might be particularly pertinent to marginalized youth. Translating global lessons into UK contexts would benefit from more ethnographic and participatory methods, particularly those that incorporate youth voices.

Interviews

Both participants believed that their programs significantly improved student academic competence, especially in the "hard" skill areas they taught explicitly. Both Programs 1 and 2 target underserved students—Program 1 is a literacy initiative which serves underachieving primary pupils eligible for Free School Meals/Pupil Premium, and Program 2, a debate training program for secondary students, selects schools by percentage of Pupil Premium students. The participant from Program 1 noted that capacity to read at 5 is a strong predictor of future GCSE performance, and the effects only escalate from there:

"I mean, if you want to know how a kid is going to do in maths, then look at their literacy. It's across the board... you can look at their literacy in primary school and have a pretty good guess at what is going to happen."

She cited program data that students generally made an equivalent of 5 months of reading progress in 3 months, relative to 1 month's progress in 3 months without the intervention. The participant for program 2 found substantial improvements in students' debate performance, including the capacity to synthesize sources on academic topics and communicate extemporaneously, that translated into greater teacher-reported engagement in classroom discussions:

"[Debate] allows them to become… more engaged in lessons, because I've had teachers say to me 'oh every few lessons I just do a debate instead' *and it gets them actually interested in the topic and… they start asking more questions to try and get a better understanding of the topic."*

However, both participants regarded non-academic benefits as equally vital, both intrinsically and as mediating factors for academic performance benefits. We have used NVivo to analyze which non-academic skills are referenced in the most passages as objectives or positive results of the program. Occurrences of the label words, or close paraphrases thereof, were manually selected into each category, and a category for academic competence was created for comparison.

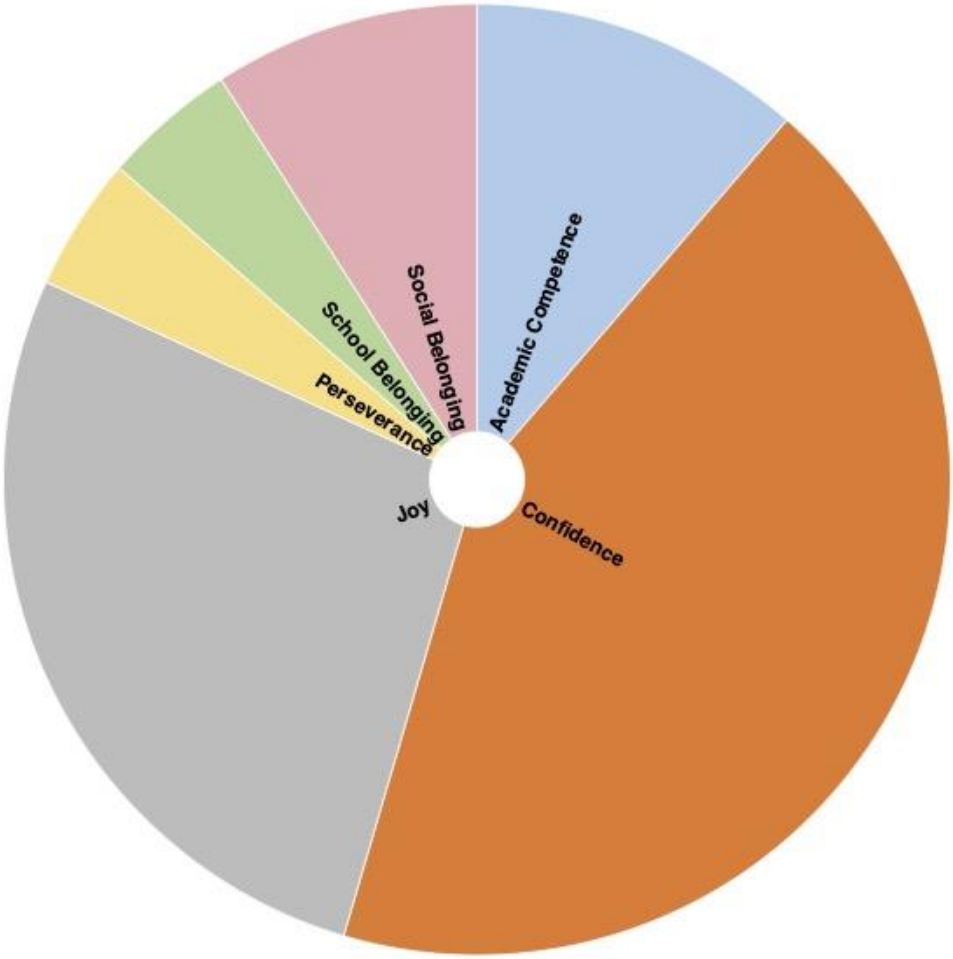

Figure 1 Hierarchy Graph of Academic vs. Non-Academic Skills Emphasized

The skill most consistently referenced as an objective (by name in 14 passages, implicitly in 5 more) is confidence. The contact from Program 1 argued that technical aspects of literacy instruction are not adequate to "unlock the potential for educational success," but that the key aspect is motivation by "a sort of enjoyment and a love of reading. It's the ability to say that, actually, I have stories, I know stories, I can produce stories." The contact from Program 2 attributed her own successful application to a prestigious university almost entirely to the confidence she built in the program. A key difference, however, is that the participant from Program 1 focused on the fun of the curriculum itself as a source of confidence for students, while the participant from Program 2 (both in narrating her own experience and that of current students) also emphasized networking skills and social belonging. The participant from Program 2 mentioned that her own experiences networking in secondary school—enabled by the forced proximity of debating conferences—enhanced her confidence and future aspirations in their own right, something she also observes with northern English youth attending debating events in London. The fact that both participants observed confidence as a primary mediating factor of achievement and social improvements represents a significant departure from previous hypotheses about co-curriculars' mechanisms of action, which center student-adult relationships (Broh, 2002).

Both participants gave views on program structure and socialization that also clash significantly with received pedagogical wisdom. The Program 1 participant, who designed her

program to be clearly differentiated from school, contended that, for low-achieving students, formal classrooms are highly competitive places which tend to "dent their confidence," and that a playful, relatively unstructured environment "helps them reinvent themselves as really successful learners, as storytellers and writers."

By contrast, the Program 2 participant noted the value of a more active instructor in co-curricular programs, provided their influence is based in collaborative partnership. She uses university student mentors rather than schoolteachers because "they're old enough to have that authority in the classroom, but they're young enough for young people to feel comfortable around and to relate to." Contrary to the Program 1 participant, the Program 2 participant favored a more structured classroom environment, but with an informal, personalized approach:

> *"I think seeing like a young person who's at university, who's potentially from a similar place to me, telling me that—teaching me these skills, doing these things with me, truly rooting for me in a less formal setting than a classroom but still in the physical space of the school—where it's familiar and safe, you're still with your peers that you know so it's not completely foreign. It's just an ideal setting, I think."*

Both participants mentioned that their students' schoolteachers have mentioned observing improvements across attitude, engagement, and academic skills following their programs. Additionally, despite limited adult interference, both providers reported that societal power dynamics do not significantly inform CCA recipients' socialization. While most participants in both organizations are of low SES, the programs are geographically diverse, and the relative absence of regionalist social hierarchies in student interaction is impressive. The Program 2 participant noted that many Northern English program participants face "a sense of imposter syndrome" when they meet Southern children at conferences, but this generally disappears organically:

> *"Seeing them interact with each other, finding those similarities, exchange their differences as well, and build their confidence, you know, we love to really iterate that."*

However, the Program 2 participant observed that gentle discussions of equity can be helpful at times:

> *"Sometimes… you can see them echoing those systemic stereotypes and you can see the barriers... that they've built up unconsciously in their minds and so, just trying to break those down."*

One key difference between the two participants is attitude towards school and parent involvement. The Program 1 participant acknowledged that parents "have a number of other competing… economic pressures" limiting their capacity for involvement but works directly with them to maintain student attendance. She seeks a strong separation between her program and school funding or administration, due to perennial educational austerity and the complex, sometimes repressive relationships young people have with the school system. Contrastingly, the Program 2 participant generally avoids non-essential contact with pupils' parents due to safeguarding challenges, coordinates with host schools, and actively simulates a classroom environment for psychological reasons:

"School is a really important ladder for students to use to potentially do whatever they want to do in the future. It's often a safe space for a lot of young people and the only safe space they may have in their life."

Discussion

This study aims to examine how co-curricular activities (CCAs) affect both academic and non-academic student outcomes, particularly in the context of educational inequality in England. By combining a literature review and interviews with CCA providers, our findings demonstrate that CCAs offer substantial benefits in academic performance, social integration, confidence, and aspirations. The mechanisms behind these effects are complex and understudied, but highly structured, goal-based programs targeted towards skill-building seem to produce larger effect sizes in academic improvement (Durlak, Weissberg and Pachan, 2010), and, according to the role-identity theory of Nelson (2017), helping students identify with academic work explains many observed benefits, especially in equalizing outcomes for the underprivileged. However, due to a lack of controlled trials of CCAs, only correlations can be confirmed, and further research is required to substantiate causal explanations (Robinson, 2024; Shulruf, 2010). Additionally, positive outcomes are unevenly distributed, impacted by socioeconomic disparities in both co-curricular accessibility and student self-selection. Multiple studies (Palou *et al.,* 2024; Donnelly *et al.*, 2019) show that students from higher socioeconomic backgrounds are more likely to engage in enrichment activities, often because of parental education, cultural capital, and access to better-resourced educational environments. This structural inequality means that students who would most benefit from CCAs, like those from low-income households, under-resourced schools, or marginalized communities, are often the least likely to participate.

Figure 2 (in Appendix) compares the support for different CCA outcomes in recent literature. While confidence and interpersonal skills have shown higher consistent positive results, this does not undermine the importance of the health and academic dimensions, nor should we see them as inherently resistant to improvement through co-curriculars. Rather, we hope that, through greater cross-class participation in CCAs, we would see a more strongly positive relationship. Indeed, Fig. 2 demonstrates the need for targeted design in co-curriculars to improve their effectiveness across dimensions.

The interviews largely reinforced the emphasis on confidence and interpersonal skills, but revealed continuing barriers to equal access for underserved students. Program 1 and Program 2 both specifically target underserved students, using indicators like Free School Meals eligibility to determine allocation, and both participants reported improved confidence in this population. However, socioeconomic barriers to equal access continue. Consistent attendance over time solidifies the benefits of co-curriculars (Meier *et al.,* 2018; Bering and Schulz, 2024). However, demanding work schedules interfere with consistent transportation for working-class families, which the Program 1 participant observed was associated with consistently worse outcomes.

These numerous barriers suggest that participation disparities may explain why some studies report neutral or even negative impacts of CCAs on educational equality. If CCAs primarily reach already-advantaged students, their benefits only reinforce unequal outcomes.

Our interviewees observed a wide array of benefits, especially academically. Academic outcomes are among the most thoroughly documented CCA benefits in the literature. Multiple studies (O'Flaherty, Baxter and Campbell, 2022; Robinson, 2024; Eccles & Barber, 1999; Gutman & Schoon, 2013) demonstrate that participation in CCAs is associated with improved literacy, mathematical reasoning, and overall academic achievement. This is largely attributed to improved soft skills (e.g., perseverance, attention, self-regulation), as well as enhanced motivation and engagement.

Both interviewees substantiated these findings. The literacy-focused Program 1 reported that most students made five months of progress in reading within a three-month period, supported by quantitative evaluation. Program 2 found increased classroom participation and academic comprehension as a result of debate training, supported by former students' testimony.

However, non-academic effects were also found, especially improvements in peer belonging. The Program 2 interviewee particularly emphasized how peer interaction at debate conferences helps students recognize their potential. This aligns with findings by O'Donnell *et al.* (2023; 2024) and Oberle *et al.* (2019), who demonstrate that CCAs facilitate crucial relationships with adults and peers that foster social capital. The social capital accumulated through these connections even appears to mediate the plurality of observed academic and social CCA benefits (Broh, 2002).

Program 2's selection of approachable, similar-aged university students as mentors harnessed this effect, echoing the dialogue-centric understanding of teaching found in our educational theorists. The beneficial impacts of this gentle guidance on students' behavior and competence in other aspects of life help to falsify Scruton's claims that submission must precede educational dialogue, and embody a vision of practical, open problem-solving presented by both Freire and Biesta. The impacts of the teaching structures observed satisfy both pedagogical theory and empirical precedent.

CCAs positively impact students' aspirations. The Program 2 interviewee powerfully described how debate gave her, and now gives other working-class students, the confidence to consider prestigious universities. This inspiration stemmed not only from skill development but also from social exposure, by meeting mentors and peers with different life paths. These findings support Cutmore, Llewellyn, and Atkinson (2020), who argue that CCAs can compensate for deficits in formal education by offering aspirational role models and building self-concept.

Confidence was the most emphasized non-academic skill in both interview accounts, cited in 14 passages. Program 1 built confidence through joy and success in literacy, while Program 2 promoted it through social interactions and public speaking. These findings support Lewis (2004) and de Prada Creo *et al.* (2020), who link CCA participation to identity, self-esteem, and the willingness to take academic and social risks, which can improve school engagement.

This finding for specifically *academic* co-curriculars reinforces the "role-identity theory" of educational attainment advanced by Nelson (2017), but with a more emancipatory narrative. The traditional role-identity theory associates positive self-identification with one's studies with a greater likelihood of academic success. It argues that co-curriculars can benefit students by rewarding their compliance in school and fostering an academic self-image. However, both co-curriculars we studied emphasize autonomous initiative and intrinsic motivation. Both Program 1, by emphasizing independent writing in the literacy process, and Program 2, by focusing on critical thought and argumentation, inject creativity into the learning process, building a deeper form of confidence than any solely focused on satisfactory classroom performance. This allows students to embody a student role that

satisfies Paulo Freire's greatest challenge to educators: to view the objects of study as common property open to active transformation. This confidence appears to mediate many other benefits: academic engagement, peer relationships, aspirations, and even classroom behavior. Though role-identity theory focuses on academic programs like these two CCAs, UK and international evidence suggests non-academic programs also reinforce confidence and learner identities (Broh, 2002; Covay and Carbonaro, 2010).

These role-identity effects depend not just on active instruction, but holistically on the space created at the CCA. Space is not just the physical setting of a CCA, but also its particular social sphere of peer and leadership interactions and the symbolic meaning students associate with it. Spaces that exclude students or reinforce preexisting power dynamics reinforce social stratification, and CCAs must actively foster inclusive cultures to maximize their role-identity impact (Smith and Barker, 2000).

To combat educational inequality, targeted CCAs should intentionally create spaces where students can reinvent themselves and freely explore new interests. STEM co-curriculars for female students proactively address this, with girls self-reporting less judgement and deeper engagement when they were in a space without boys, fostering their attachment to these fields (Watermeyer, 2012). Both interviews stressed the importance of space in combating educational inequality, with Program 1 suggesting that students are better able to redefine how they see education when they can be in a space detached from their school. Though constructing welcoming spaces is vital, learning environments are profoundly shaped by the values and participation of students and so cannot be reliably produced through unilateral teacher interventions. Rather, CCA facilitators should strive for the Biestan ideal of teachers offering independent insight while partnering with students to build a shared learning environment.

By developing soft skills, forging positive peer networks, and providing spaces for transformations of self-image, well-designed co-curricular activities can improve educational outcomes and foster social mobility. However, unless economic barriers that limit students' options and regular attendance are addressed, CCAs risk reinforcing the very inequalities they seek to mitigate. Our findings underscore the need to view well-funded, accessible CCAs as a vital opportunity for every child, and structure CCAs in egalitarian ways that build broad-spectrum academic and social competences.

Conclusion

This study set out to investigate the role of CCAs in maintaining educational inequality and offer strategies for CCAs to use to reduce inequality. Both our review of the literature and our interviews with two program providers reinforced the clear benefits of CCA participation across social classes and the role of socioeconomic disparities in limiting consistent, affordable access for the poorest students, who stand to benefit the most from CCAs.

To best address injustice, CCAs must consistently include marginalized youth, provide challenging group projects, and offer meaningful mentorship opportunities where young people can build vital communication skills and reimagine their futures. Both independent and school-based co-curriculars can produce positive outcomes, but consistent funding for well-trained schoolteachers or external facilitators to lead CCAs is non-negotiable, and transportation barriers for working parents must be addressed.

This study has several key limitations. First, the qualitative component relied on interviews with only two CCA providers, both of whom offered academic programs to mostly underprivileged youth. These interviews do not capture the full diversity of CCAs: their academic focus is highly unrepresentative of co-curriculars in England today, excluding both sports and arts programs, which are highly popular and have significant and complex impacts on youth wellbeing. The study also lacks direct input from students and parents, which limits its ability to represent individual experiences of participation and engagement. Expanding data collection to these stakeholders in the future could offer insights into the barriers that shape engagement, revealing different, more nuanced inequalities which are invisible to program providers. Furthermore, different dimensions of inequality, such as disability, race, and gender, were not explored in depth, even though they add vital complexity to the outcomes of different CCAs.

Despite limitations, this study contributes valuable insights into the diverse impact of CCAs, and demonstrates both the power of collaborative, problem-solving co-curricular programs to achieve benefits for the most vulnerable and the urgency of building an equitable system to expand the reach of these programs.

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Appendix

Figure 1: Pie chart

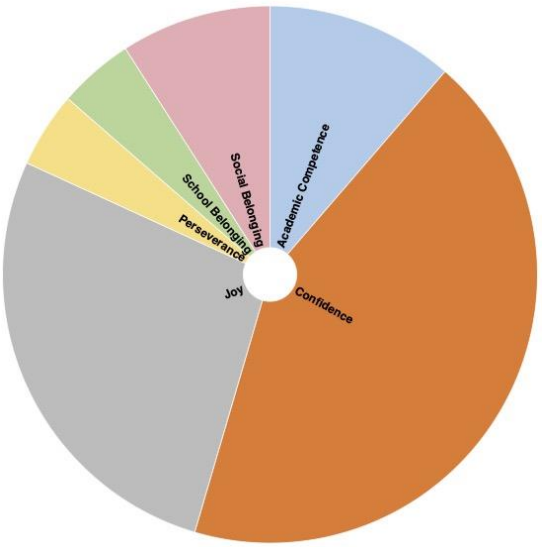

Figure 1 was constructed in NVivo by counting the number of continuous passages directly or implicitly referencing joy, perseverance, confidence, academic skills, school belonging, and social belonging as real or intended benefits of the provider's program. Passages in each category were coded in NVivo under "Joy," "Perseverance," "Confidence," "Academic skills," "School belonging," and "Social Belonging" respectively. NVivo's Hierarchy Chart: Sunburst feature was then used to synthesize the findings into a pie chart. Data coding was done manually, without artificial intelligence.

Figure 2: Radar graph

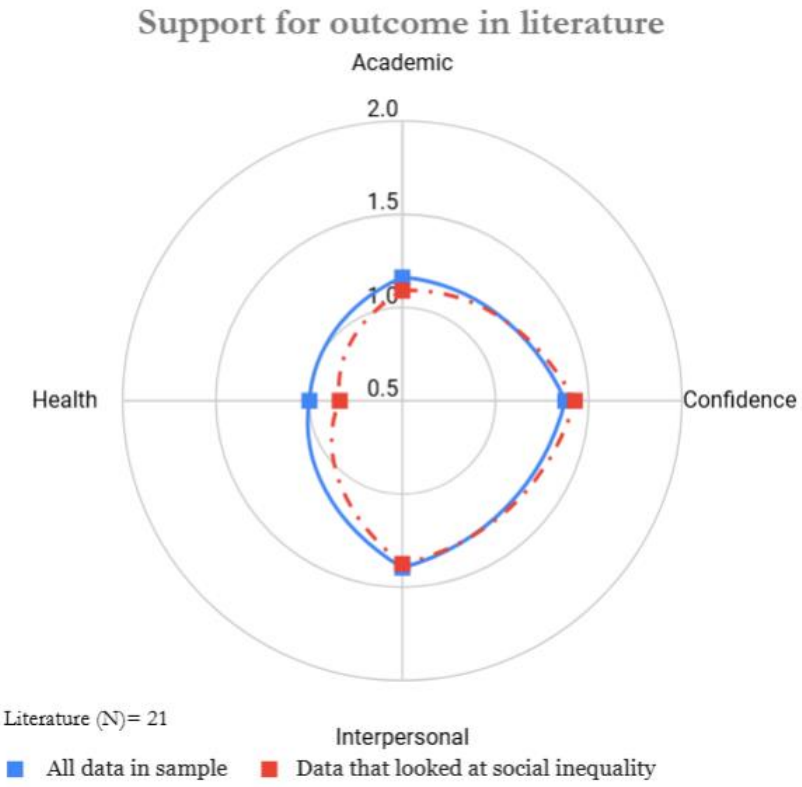

Figure 2 was made from a sample of 21 recent articles exploring both primary and secondary data related to CCAs and their outcomes in various dimensions. To reflect the top four areas of focus we found in studies, we scored articles based on the strength of impact they observed for Academic skills, Confidence (including belonging and self-esteem), Interpersonal skills (including socio-emotional skills), and Health (normally mental health in the literature, but inclusive of physical). We scored the impacts of CCAs in the following manner: N/A (blank) represents "no mention of impact on dimension in study," 0 represents "CCAs found to have no impact or negative impact on dimension," 1 represents "mixed or very weak impacts found," and 2 represents "strong impact found on dimension." The value for each dimension on the graph is the average of the recorded scores for that dimension. The values in blue represent the averages across the entire data, while those in red represent those from studies which actively addressed social inequality in co-curricular access or impact.

This evaluation was greatly subjective and constrained by a small sample size, but nonetheless demonstrates how beneficial impacts on soft skills, especially confidence, are strongly reflected in the literature. We used Google Sheets to construct the radar graph and process the data.

Article (author)	Study type	Academic	Confidence/ belonging	Inter-personal	Health		CODING HERE IN COMMENT
Palou et al., 2024	Equity	0	2	2			Observed p<.05 relationships between CCA attendance and both interpersonal and intrapersonal skills. For interpersonal skills, CCAs nullified SES effect, for intrapersonal skills, there is no SES effect to begin with. p<.05 lack of relationship between CCA attendance and cognitive skills, and we found greater SES-based inequality in cognitive skills among CCA attendant students than non-CCA attendant ones. (Both inequality levels are measured with p<.001)
Donnelly et al., 2019	Equity	1	1	2	1		Health improvements supported by interviews with 3 students; confidence improvements supported by interviews with 2 parents and 1 study on self-concept; academic achievement improvements supported by 7 studies, one of which mentions an SES-equalizing effect, interpersonal skill improvements are supported by references to 5 studies but not found in the article's own data collection, though impacts on interpersonal skills are found to be significant statistically for social mobility. Substantial inequities of access are found, though it is unclear how these impact the different dimensions.
Robinson, 2024	Equity	2			0		Almost but not quite statistically significant relationship between sports involvement and higher education participation at age 21/22 (significant if activities are only Hobbies/Music/Arts). Positive (insignificant) relationship between sports involvement and health at age 21/22, and negative relationship between only hobbies/music/arts involvement and health at age 21/22. Happiness (insignificantly) improved by sports and sports+Hobbies/Music/Arts, but not by only Hobbies/Music/Arts. Definite demographic inequalities in participation, but with unclear impacts on effect strength for each category.
O'Donnell et al., 2024	Equity	1	2	1	2		Academic: positive results found in 1 previous study for delinquency, but only in underprivileged neighborhoods. Inter-personal: school belonging improved by CCAs, other impacts unclear. Statistically significant positive indirect effect of CCA involvement on depressed mood via social belonging, conditional on being from an underprivileged neighborhood (p<.05).
Bering and Schulz, 2024	Equity	0					Positive academic results observed, moreso for both music and sports (p<0.05) and for music alone (p<0.01) than for sports alone (no clear association). However, it is unclear how they impact inequality, though it is likely that educational inequality is reinforced given the model of student access.
Meier et al., 2018	Equity	1			2		Statistically significant impacts from co-curriculars decreasing likelihood of substance use and increasing likelihood of college graduation/high grades. However, CCAs do very little to equalize preexisting demographic indicators of grade outcomes.
Cutmore, Llewellyn, and Atkinson, 2020	General data	1	2	2			77.9% of providers observed increased confidence, 45.3% observed improved interpersonal skills, and the highest academic adjacent category had 22.1% observation.
Marsh and Kleitman, 2009	General data	1	1				At least 3 cited studies show positive academic results from athletics. In this study, grade/university enrollment effects and effects on self-esteem are generally positive, but with some minor counterindication including statistically significant negative academic effects from athletics. Diminishing returns and small effect size appeared for both enrollment and self-esteem.
Feldman and Matjasko, 2005	General data	2	1	1	1		Positive effects in each area are observed in various studies within this literature review, though the only one solidly confirmed by a national representative study (more resistant to selection bias) is academic improvement.
Carbonaro and Maloney, 2019	General	1	1	0	1		Consistent, statistically significant positive academic effects observed (though small in magnitude), and mixed, often statistically insignificant effects on socioemotional skills. Positive effects on health and confidence mentioned in lit review but not studied in sample.
Fredricks and Eccles, 2006	Equity	2	0	1	0		Participation in sports in 8th grade yields significant positive effects among all four dimensions in 11th grade, and participation in sports and prosocial activities in 11th grade yields positive academic outcomes (p<0.001), though breadth of co-curricular participation produces no meaningful effects on health or confidence/belonging.

Covay and Carbonaro, 2010	Equity	1		1			Cognitive and non-cognitive skills are both improved by CCAs, though selection effects eliminate the significance of clubs and performing arts. We also observe different effect sizes for different ethnic and class groups, producing a few negative interaction effects for sports and racial minorities in the non-cognitive and cognitive domains.
Watermeyer, 2012	Equity	1	2	1			Qualitative study: sorting relies on a different methodology. Strong confidence and belonging effects are consistently observed, though some questioned whether interpersonal or academic benefits would have been greater with a non-single-sex program design.
Broh, 2002	General data	1	2	2			We find strong academic benefits from interscholastic sports and music (significant to p<0.001), and lesser or mixed impacts from other activities, though the main mechanisms of effect appear to be via locus of control and peer group building. Hence, the most direct impacts are confidence/belonging and interpersonal.
Hitchcock, Seno-Alday, and Chandra, 2024	Equity	2					Co-curriculars in university with academic eligibility criteria motivate participants to perform to that standard, even for students who do not value or engage deeply with the co-curricular program. It must be noted, however, that this incentive does not extend to pushing students to maximize their performance or engage in comprehension-focused deep learning.
Davalos, Chavez, and Guardiola, 1999	Equity	1	2	1			Statistically significant effects from co-curriculars found for school participation (a facet of academic performance), perception of school, and understanding of the racial biases of teachers (an interpersonal skill). Perception of school, a form of belonging, is strongly impacted with p<.001. Significant disparities in co-curricular participation also appear, with more culturally white students more likely to participate.
O'Flaherty, Baxter, and Campbell, 2022	General data	1	1	1	2		Positive, statistically significant effects of varying strengths observed in all categories. While some of these are no longer significant under a fixed-effects panel data approach, the psychosocial health category demonstrates significant (p< 0.01) fixed effects for all co-curricular activities besides arts.
Décarpentrie et al., 2022	Equity		1	2	0		Qualitative interview: peer and adult relationship building is emphasized most, then confidence building. The harsh health conditions of this underdeveloped region in Madagascar are discussed as a constant throughout, and the sporting environment both encourages avoidance of alcohol and hosts a substantial drinking culture.
Oberle et al., 2019	General data		2	2	2		Statistically significant improvements in peer belonging, as well as mental health and optimism (via peer belonging), observed when students adopt group activities. However, a transition from no activities to only individual activities does not produce significant mental health impacts.
Shulruf, 2010	General data	1	0				Significant and sizeable effect found from ECAs on aspiration to tertiary studies. There are consistent but less sizeable and mostly non-significant other academic effects of ECAs and one positive insignificant confidence effect of ECAs with a small effect size (0.04).
Durlak, Weissberg and Pachan, 2010	General data	2	2	2	0		Statistically significant effects (p < 0.05) found in various dimensions of belonging, interpersonal behavior, and academic competence. No significant effect on drug use.

Bibliography

Barber, B.L., Stone, M.R. and Eccles, J.S. (2005) 'Adolescent Participation in Organized Activities', in K.A. Moore and L.H. Lippman (eds) *What Do Children Need to Flourish? Conceptualizing and Measuring Indicators of Positive Development*. Boston, MA: Springer US, pp. 133–146. Available at: https://doi.org/10.1007/0-387-23823-9_9.

Bering, H. & Schulz, W. (2024) Can sports and music level the playing field? Adolescents' extracurricular activities and the reproduction of social inequalities in cognitive skills. *Research in social stratification and mobility*. [Online] 90.

Biesta, G. (2016) *The beautiful risk of education*. 1st ed. [Online]. Abingdon, Oxon: Routledge.

Billingsley, J. T. & Hurd, N. M. (2019) Discrimination, mental health and academic performance among underrepresented college students: the role of extracurricular activities at predominantly white institutions. *Social psychology of education*. [Online] 22 (2), 421–446.

Broh, B.A. (2002) 'Linking Extracurricular Programming to Academic Achievement: Who Benefits and Why?', *Sociology of Education*, 75(1), pp. 69–95. Available at: https://doi.org/10.2307/3090254.

Brooks, B. A. *et al.* (2015) Extracurricular activities and the development of social skills in children with intellectual and specific learning disabilities. *Journal of intellectual disability research*. [Online] 59 (7), 678–687.

Carbonaro, W. & Maloney, E. (2019) Extracurricular Activities and Student Outcomes in Elementary and Middle School: Causal Effects or Self-selection? *Socius : sociological research for a dynamic world*. [Online] 5.

Carter, P. L. (2016) Educational Equality Is a Multifaceted Issue: Why We Must Understand the School's Sociocultural Context for Student Achievement. *RSF : Russell Sage Foundation journal of the social sciences*. [Online] 2 (5), 142–163.

Children's Commissioner (2024). Press Notice: Over a quarter of a million children are still waiting for mental health support. [Online] Children's Commissioner for England. Available at: https://www.childrenscommissioner.gov.uk/blog/over-a-quarter-of-a-million-children-still-waiting-for-mental-health-support/.

Cimatti, B., 2016. Definition, development, assessment of soft skills and their role for the quality of organizations and enterprises. *International Journal for Quality Research,* 10(1), pp. 97-130.

Condliffe, E. (2023) 'Out of sight, out of mind': an interpretative phenomenological analysis of young people's experience of isolation rooms/booths in UK mainstream secondary schools. *Emotional and behavioural difficulties*. [Online] 28 (2–3), 129–144.

Covay, E. & Carbonaro, W. (2010) After the Bell: Participation in Extracurricular Activities, Classroom Behavior, and Academic Achievement. *Sociology of education*. [Online] 83 (1), 20–45.

Cutmore, M., Llewellyn, J. and Atkinson, I. (2020). Extracurricular activities to develop life skills Findings and lessons for practice. [Online] Available at: https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/942568/ELS_what_works_paper.pdf.

Davalos, D. B., Chavez, E. L. and Guardiola, R. J. (1999) The Effects of Extracurricular Activity, Ethnic Identification, and Perception of School on Student Dropout Rates. *Hispanic journal of behavioral sciences*. [Online] 21 (1), 61–77.

Department for Education (2014). The National Curriculum. [Online] GOV.UK. Available at: https://www.gov.uk/national-curriculum.

de Prada Creo, E., Mareque, M. and Portela-Pino, I. (2020) 'The acquisition of teamwork skills in university students through extra-curricular activities', *Education + Training*, 63(2), pp. 165–181. Available at: https://doi.org/10.1108/ET-07-2020-0185.

Décarpentrie, L. *et al.* (2024) Extracurricular activities as a way to foster development for youth living in an extreme context: a basic psychological needs perspective in Madagascar. *Current psychology (New Brunswick, N.J.)*. [Online]

Donnelly, M. *et al.* (2019) *An Unequal Playing Field: Extra-Curricular Activities, Soft Skills and Social Mobility*. [Online] Available at https://assets.publishing.service.gov.uk/media/5d307b8de5274a14e9f6bc20/An_Unequal_Playing_Field_report.pdf

Durlak, J. A. *et al.* (2010) A Meta-Analysis of After-School Programs That Seek to Promote Personal and Social Skills in Children and Adolescents. *American journal of community psychology*. [Online] 45 (3–4), 294–309.

Fakhretdinova, G.N., Osipov, P. and Dulalaeva, L.P. (2021) 'Extracurricular Activities as an Important Tool in Developing Soft Skills', in *Educating Engineers for Future Industrial Revolutions. International Conference on Interactive Collaborative Learning*, Springer, Cham, pp. 480–487. Available at: https://doi.org/10.1007/978-3-030-68201-9_47.

Farkas, G. (2003) Cognitive Skills and Noncognitive Traits and Behaviors in Stratification Processes. *Annual Review of Sociology.* [Online] 29 (1), 541–562.

Feldman, A. F. & Matjasko, J. L. (2005) The role of school-based extracurricular activities in adolescent development: A comprehensive review and future directions. *Review of educational research*. [Online] 75 (2), 159–210.

Feraco, T. *et al.* (2023) 'Adaptability and emotional, behavioural and cognitive aspects of self-regulated learning: Direct and indirect relations with academic achievement and life satisfaction', *British Journal of Educational Psychology*, 93(1), pp. 353–367. Available at: https://doi.org/10.1111/bjep.12560.

Fredricks, J. A. & Eccles, J. S. (2006) Is Extracurricular Participation Associated With Beneficial Outcomes? Concurrent and Longitudinal Relations. *Developmental psychology*. [Online] 42 (4), 698–713.

Freire, P. (1972) *Pedagogy of the oppressed*. Harmondsworth: Penguin.

Gini Coefficient by Country 2025 (no date). Available at: https://worldpopulationreview.com/country-rankings/gini-coefficient-by-country (Accessed: September 15, 2025).

Guest, A. M. *et al.* (2021) Integrating global and local best practices for youth development afterschool: Constructing the Kilimanjaro extracurriculars self-assessment. *Cogent education*. [Online] 8 (1).

Guillemin, E. (2025) 'Biesta's world-centred education: subjectification revisited?', *Journal of Philosophy of Education*, 59(2), pp. 274–289. Available at: https://doi.org/10.1093/jopedu/qhae057.

Gutman, L.M. and Schoon, I. (2013) *The impact of non-cognitive skills on outcomes for young people. A literature review*, *Education Endowment Foundation: London, UK*. Report. London, UK: Education Endowment Foundation. Available at: https://educationendowmentfoundation.org.uk/evidence-summaries/evidence-reviews/essential-life-skills/ (Accessed: 9 August 2025).

Harris, R., Johnston, R. and Burgess, S. (2007) "Neighborhoods, Ethnicity and School Choice: Developing a Statistical Framework for Geodemographic Analysis," *Population Research and Policy Review*, 26(5), pp. 553–579. Available at: https://doi.org/10.1007/s11113-007-9042-9.

Harris, T. *et al.* (2025) "Social Capital in the United Kingdom: Evidence from Six Billion Friendships." SocArXiv. Available at: https://doi.org/10.31235/osf.io/kb7dy_v1.

Hitchcock, S. *et al.* (2024) Missing the Mark: lessons From Failing to Foster Learner Engagement in a Co-Curricular Program. *Journal of management education*. [Online] 48 (6), 1032–1053.

Holloway, S. L. & Pimlott-Wilson, H. (2014) Enriching Children, Institutionalizing Childhood? Geographies of Play, Extracurricular Activities, and Parenting in England. *Annals of the Association of American Geographers*. [Online] 104 (3), 613–627.

Julius, J. & Sims, D. (2020) Schools' Responses to COVID-19: Support for Vulnerable Pupils and the Children of Keyworkers. *National Foundation for Educational Research*.

Kiilakoski, T. & Kivijärvi, A. (2015) Youth clubs as spaces of non-formal learning: professional idealism meets the spatiality experienced by young people in Finland. *Studies in continuing education*. [Online] 37 (1), 47–61.

Kimiko, M. (2005). The Effects of Extracurricular Activities on the Academic Performance of Junior High Students. *Undergraduate Research Journal for the Human Sciences*. [online] Available at: https://publications.kon.org/urc/v5/fujita.html.

Lewis, C.P. (2004) *The relation between extracurricular activities with academic and social competencies in school -age children: A meta-analysis*. Ph.D. Texas A&M University. Available at: https://www.proquest.com/docview/305077150/abstract/F7488A04043B40B7PQ/1 (Accessed: 9 August 2025).

Lleras, C. (2008) Do skills and behaviors in high school matter?: The contribution of noncognitive factors in explaining differences in educational attainment and earnings. *Social science research*. [Online] 37 (3), 888–902.

Mahoney, J.L., Cairns, B.D. and Farmer, T.W. (2003) 'Promoting Interpersonal Competence and Educational Success through Extracurricular Activity Participation', *Journal of Educational Psychology*, 95(2), pp. 409–18.

Mammadov, S. & Schroeder, K. (2023) 'A meta-analytic review of the relationships between autonomy support and positive learning outcomes', *Contemporary Educational Psychology*, 75, p. 102235. Available at: https://doi.org/10.1016/j.cedpsych.2023.102235.

Martinez, A. *et al.* (2016) Involvement in Extracurricular Activities: Identifying Differences in Perceptions of School Climate. *The educational and developmental psychologist*. [Online] 33 (1), 70–84.

Marsh, H. W. & Kleitman, S. (2002) Extracurricular school activities: the good, the bad and the nonlinear. *Harvard educational review*. [Online] 72 (4), 464–514.

Maqbool, I. & Cremin, H. (2024) Students' experiences of extracurricular activities in elite secondary schools in Lahore. *Compare*. [Online] 54 (8), 1253–1270.
Education Endowment Foundation (2021). Aspiration interventions. [online] EEF. Available at: https://educationendowmentfoundation.org.uk/education-evidence/teaching-learning-toolkit/

Meier, A. *et al.* (2018) A Quarter Century of Participation in School-Based Extracurricular Activities: Inequalities by Race, Class, Gender and Age? *Journal of youth and adolescence*. [Online] 47 (6), 1299–1316.

Oberle, E. *et al.* (2019) Benefits of Extracurricular Participation in Early Adolescence: Associations with Peer Belonging and Mental Health. *Journal of youth and adolescence*. [Online] 48 (11), 2255–2270.

O'Donnell, A. W. *et al.* (2024) Extracurricular activity participation, school belonging, and depressed mood: a test of the compensation hypothesis during adolescence. *Applied developmental science*. [Online] 28 (4), 596–611.

O'Flaherty, M. *et al.* (2022) Do extracurricular activities contribute to better adolescent outcomes? A fixed-effects panel data approach. *Journal of adolescence (London, England.)*. [Online] 94 (6), 855–866.

Nelson, I. A. (2016) *Why Afterschool Matters*. [Online]. New Brunswick, NJ: Rutgers University Press.

Palou, A. *et al.* (2024) Social inequality in skills: Exploring the moderating role of extracurricular activities related to socio-economic differences in non-cognitive and cognitive outcomes. *European journal of education*. [Online] 59 (3)

Richards, J.B., Litman, J. and Roberts, D.H. (2013) 'Performance characteristics of measurement instruments of epistemic curiosity in third-year medical students', *Medical Science Educator*, 23(3), pp. 355–363. Available at: https://doi.org/10.1007/BF03341647.

Robinson, D. (2024). *Access to extra-curricular Provision and the Association with Outcomes*. [Online] Available at: https://epi.org.uk/wp-content/uploads/2024/02/EC-and-outcomes-final-1.pdf.

Roberts, P. (2000) *Education, literacy, and humanization : exploring the work of Paulo Freire*. First edition. [Online]. Westport, Conn: Praeger.

Scruton, R. (1987) Expressionist Education. *Oxford review of education*. [Online] 13 (1), 39–44.

Shulruf, B. (2010) Do extra-curricular activities in schools improve educational outcomes? A critical review and meta-analysis of the literature. International review of education. [Online] 56 (5/6), 591–612.

Singleton, A.D. *et al.* (2011) "Estimating secondary school catchment areas and the spatial equity of access," *Computers, Environment and Urban Systems*, 35(3), pp. 241–249. Available at: https://doi.org/10.1016/j.compenvurbsys.2010.09.006.

Smith, F. & Barker, J. (2000) Contested Spaces: Children's Experiences of Out of School Care in England and Wales. *Childhood*. [Online] 7 (3), 315–333.

Solish, A. *et al.* (2010) Participation of Children with and without Disabilities in Social, Recreational and Leisure Activities. *Journal of applied research in intellectual disabilities*. [Online] 23 (3), 226–236.

Taneja-Johansson, S. and Powell, J. J. W. (2024) 'Confronting the idealised 'Nordic model' in education with contemporary realities of special education in Sweden', *European Journal of Special Needs Education*, 39(6), pp. 866–881. doi: 10.1080/08856257.2024.2425501.

Watermeyer, R. (2012) Confirming the legitimacy of female participation in science, technology, engineering and mathematics (STEM): evaluation of a UK STEM initiative for girls. *British journal of sociology of education.* [Online] 33 (5), 679–700.

Windle, J. (2021) 'Reconsidering the 1991 Blackbird Leys Rioters as an Underclass: An Insider Perspective', in *Giving Voice to Diversity in Criminological Research*. [Online]. pp. 133–148.