How does collaborative reasoning prepare students to participate as ecological citizens in a deliberative democracy? A literature review

Michelle Sowey, October 2024

New literacies support the development of dispositions and skills needed for navigating complex media landscapes, analysing and interpreting diverse forms of communication, and engaging meaningfully in public discourse. Cope & Kalantzis (2000) and Polizzi (2020) are among the many scholars whose research highlights the potential of new literacies to equip students for active and responsible participation in democratic processes. Kellner (2002) concurs that "without an educated, informed and literate citizenry, a robust democracy is impossible" (p. 94). Discussing cultural literacy in the context of citizenship education, Rapanta et al. (2020) highlight dialogic empathy, multi-perspectivism, identity negotiation, and co-construction of meaning as key to enhancing argumentation for democratic engagement. Goodling (2015) goes further, arguing that "teaching digital activism empowers students, increases agency, and helps them grasp the value of disrupting existing, outdated, or oppressive power dynamics" (p. ii). Researchers in the influential New London Group argue that the multiliteracies approach actively prepares learners to shape their social futures (Cope & Kalantzis, 2000). They highlight the value of multiliteracies education for supporting informed decision-making, contributing to constructive and inclusive dialogue, and shaping engaged, reflective and critical thinking citizens.

A complementary approach to achieving these same outcomes is to foster a form of dialogue called collaborative reasoning (also known as collaborative argumentation, or dialectical argumentation). This is a form of dialogue involving a verbal exchange in which participants put forward claims and justify them with reasons. Chinn & Clark (2013) note that in collaborative reasoning,

> participants often disagree in the positions they take, and thus their argumentation may be directed at exploring and perhaps resolving this disagreement. However… people may engage in collaborative argumentation when they do not disagree. For example, people may jointly develop reasons to support a position that both agree with, or they may work together to use evidence to develop and refine a position (p. 315)

The ultimate goal of collaborative reasoning is for participants to work together to deepen their understanding using a dialectical process, in which conflicting arguments are pitted against each other and then integrated in a way that acknowledges their respective strengths and limitations (Worley, 2018). Thinking together with others helps people move through this dialectical process in a way that is often difficult for individuals to accomplish

on their own (Institute for Philosophy in Public Life, 2012). Reasoning undertaken as a collaborative endeavour is beneficial as it helps to frame problems constructively, clarify commitments, identify flawed arguments, overcome dogmatic beliefs, and align decisions with values (Sowey, 2024).

The very institution of democracy depends on a thriving public sphere: an inclusive, non-coercive space for rational deliberation in which ideas are accepted through force of argument, and in which citizens can test the legitimacy of decisions made by their institutions (Schreiber, 2017). Lynch (2012) argues that "democracies are, or should be, spaces of reasons" (p. 114). Indeed, the widespread practice of collaborative reasoning is the touchstone of a flourishing public sphere (Moshman, 2020).

In the absence of a culture of collaborative reasoning, Australia's public sphere has been debased by the disproportionate influence of powerful lobby groups on public officials (Lucas, 2021), the reduction of political communication to spin (Hobbs, 2015), the persistence of combative and volatile parliamentary discourse (Tingle, 2024), the rise of 'clickbait' journalism (Williams, 2020), and the degrading effects of polarisation, tribalism, and misinformation on civic discourse (Vasist et al., 2024). Nuanced discourse depends on people's capacity and willingness to properly hear each other out, to formulate subtle and sometimes complex arguments, communicate them sensitively, and evaluate them in a framework of evidence and alternatives (Kuhn, 2005).

Interest is growing in citizens' assemblies, among other models of deliberative democracy. I argue that

> [t]hese models invite grassroots participation, restore trust in political institutions and release government from the disproportionate influence of privileged elites. In citizens' assemblies, individuals collaborate to make careful evaluative judgements, taking into account swathes of complex information and varying degrees of uncertainty. These forums restore civility and argumentative complexity to often rhetoric-laden discussions of wicked problems. (Sowey, 2024)

Purpose and Scope

In this literature review, I critically examine the role of collaborative reasoning in preparing students for deliberative ecological citizenship amid an environmental crisis that necessitates immediate and profound educational reform. I contextualise citizenship education within the urgent ecological challenges we face, contrasting two divergent conceptions of ecological citizenship. I then explore what collaborative reasoning can contribute to education for deliberative ecological citizenship. I conclude my analysis by investigating the knowledge, dispositions, skills and values required for deliberative ecological citizenship. In my subsequent discussion I briefly synthesise research findings and identify a number of gaps in the literature. I conclude with a summary of key points and an outline of research implications.

Research Question

How does collaborative reasoning prepare students to participate as ecological citizens in a deliberative democracy?

Critical Analysis

The climate and ecological crisis presents today's youth with a profound existential threat, demanding an critically engaged educational response (Niebert, 2019). While some researchers (e.g. Johnston, 2019) focus on the need for better scientific knowledge or greater technical skill in mitigating and adapting to the situation, such an approach may inadvertently reinforce the status quo, overlooking the systemic changes needed for a sustainable future. Educators must fundamentally rethink their goals and consider what kind of people, living in what kind of arrangement, might be expected to survive and thrive in an uncertain future (Lockrobin, 2020).

Education for Ecological Citizenship

Against this backdrop, there is a need to educate specifically for ecological citizenship (Berkowitz et al., 2005; Hayward, 2020; Schild, 2016). However, extensive international research reviewed by Cutter-Mackenzie & Rousell (2019) reveals that schooling rarely addresses ecological citizenship with any depth, nuance or rigour. Troublingly, curricula continue to focus more or less narrowly on employment readiness, even at the cost of neglecting students' democratic imagination, their competence in public reasoning within local communities, and their capacity to take collective action (Hayward, 2020). This is especially concerning given that today's children, who among current generations have the most to lose from continued environmental inaction, typically have the least access to political influence and the fewest opportunities to develop civic power (Commissioner for Children and Young People–South Australia, 2023; Erbstein, 2013). The scale and urgency of the ecological crisis, as articulated by Bradshaw et al. (2021), Spratt & Dunlop (2018), and Brozović (2022), demands a reconsideration of educational priorities to restore democratic engagement.

Two Conceptions of Ecological Citizenship

Neoliberal thinkers have tried to couch environmental citizenship in terms of each individual's personal responsibility to live sustainably, thereby shifting accountability away from the state (Reiner, 2017). However, localised individual actions alone are manifestly inadequate for addressing the magnitude and urgency of the current ecological crisis (Hayward, 2020). The conception of ecological citizenship as primarily a matter of individual responsibility rests on a contractual view according to which citizens should only take ecological action if others will do the same, which is an insufficient basis for pro-environmental behaviour (Hayward et al., 2015). Emphasising personal responsibility is a

deliberate effort by corporations to recast citizens as consumers and shift blame onto them, an effort described as "micro-consumerist bollocks" (Monbiot, 2021, para. 19) and exemplified by the invention of the personal carbon footprint (para. 27). Kymlicka (2012) argues that "the outcome of this personal responsibility crusade… has been pathological and destructive, but the neoliberal conception of individual responsibility retains broad public appeal" (p. 74).

The present ecological emergency demands a stronger conception of ecological citizenship. Carvalho (2007) calls for a "transformative global citizenship" (p. 180) which entails "moving from short-term goals to political far-sightedness, decoupling good government from economic growth and correcting the imbalances of the global economic order" (p. 180). In addition to taking individual actions, ecological citizens must become more public-spirited (Kymlicka, 2012) and take collective action on the underlying structural, systemic and and institutional drivers of climate and ecological degradation (Hadjichambis & Paraskeva-Hadjichambi, 2020). A deliberative democratic system holds promise for strengthening collective responses to the profound challenges we face (Willis et al., 2022).

Collaborative Reasoning in the Context of Education for Deliberative Ecological Citizenship

Collaborative reasoning is proposed as a vital pedagogical tool for fostering ecological citizenship within a larger project of deliberative education that has been described as radical (Martin, 2014). In school-based collaborative reasoning sessions, the class becomes an inclusive civic forum representing a microcosm of an idealised public sphere (Saner, 2022). Learning how to reason collaboratively in such a forum is argued to build essential skills for eventual broader public deliberation (Nishiyama, 2019). Hayward et al. (2015) suggest that such classroom dialogue provides a "seedbed of citizenship," helping students to reflect on their values and broaden their circle of care. Further, participating students attest to the transformative power of engaging in collaborative reasoning (Sowey, 2024). However, we should critically inquire as to whether these discussions translate into real-world civic engagement, or whether their impact is confined to the classroom and students' personal lives.

The literature on dialogic pedagogy recognises classroom dialogue as a powerful medium for fostering students' civic participation in deliberative democracy (Segal et al., 2017). The value of dialogic teaching is in fact entwined with the requirements of democracy, as Alexander (2008) indicates: "Democracies need citizens who can argue, reason, challenge, question, present cases and evaluate them" (p. 184). Democracies decline, Alexander argues, when citizens merely "listen rather than talk… when they comply rather than debate" (p. 184). Passiveness and submissiveness are antithetical to flourishing (Sowey, 2022). Deliberative citizenship is vital if we are to address a plurality of contradictory and conflictual interests without dissolving difference (Larrain et al. (2021).

To equip young people as active participants in public life, citizenship education must go deeper than it ordinarily does (Heggart & Flowers, 2020). Standard curricula (e.g., Victorian

Curriculum and Assessment Authority, n.d.) focus on conveying knowledge of the electoral process, the Constitution, legislative process, and 'national identity'. However, Brett and Thomas (2014) argue, for real access to power in a democracy, young people need experiential, active citizenship education because "advocacy, campaigning, and taking informed action are at the heart of effective citizenship education" (p. 61). Students need to become adept at marshalling evidence, critically engaging with ideas, articulating a position, and making a case for change. These are bedrock skills for participation in deliberative dialogue, and essential competencies for using reason to persuade fellow citizens, governments or policy-makers (Sowey, 2024).

Larrain et al. (2021) indicate that deliberative education is intrinsically inclusive, providing space for students to encounter "the worldviews and subjectivities of diverse others" (p. 10) and supporting "appreciation of differences (social, sexual, gender, ethnic, body, and among others), where the idea of normality is disputed" (p. 9). The inclusive nature of deliberative education helps to dismantle prejudices and so diminish academic segregation, with beneficial outcomes for students across the spectrum of sociocultural advantage/ disadavantage (Larrain et al., 2021). However, Graff (2022) criticises deliberative education for advantaging people from select societal groups (typically middle-class, educated, white, heterosexual, and male) who are more familiar with, and favourable toward, reasoned argumentation as a mode of discourse.

Graff (2022) also cautions that deliberative education may inadvertently facilitate groupthink. He cites empirical evidence that members of deliberative groups often hesitate to express views that diverge from the majority. This reluctance may stem from doubts about the legitimacy of their dissenting views, or from concerns about their social status being compromised by opposing the consensus. Graff also notes the risk of 'information cascades' whereby early contributions to a deliberative discussion have the effect of biasing the ensuing discussion, due to a tendency of group members to align themselves with views that have already been expressed. A further concern is that deliberation may cause group polarisation, whereby a slight leaning towards a given perspective becomes more extreme as the discussion progresses (Graff, 2022). These risks highlight the importance of developing specialised dispositions, skills and values for effective collaborative reasoning, as discussed below.

Knowledge, Dispositions, Skills and Values Required for Deliberative Ecological Citizenship

Ecological citizens—defined in Carvalho's (2007) strong sense—require knowledge and skills that extend beyond the range of traditional school curricula, challenging entrenched assumptions about power and responsibility. Ecological citizens must investigate the exercise of power in decision-making (e.g., recognising state capture by vested interests, and perceiving the influence of corporate power on consumer behaviour); interrogate widely-held assumptions (e.g., about the viability of infinite economic growth, and about the nature of humanity's relationship with other living organisms, ecosystems and the biosphere); and examine global and intergenerational injustices, as well as the contested concepts, values and

beliefs that underlie them (Parra et al., 2020; Veugelers, 2023). Further, becoming ethically educated as an ecological citizen means being able "to confront nuanced and novel ethical situations and figure out what to think, what to feel and what to do when there is no instructor there to adjudicate, and there are no general principles that do the hard work for us" (Lockrobin, 2022).

Participants in collaborative reasoning about ecological issues—or indeed any other contentious issues—must acquire a set of dispositions, skills and values that are conducive to deliberative engagement (Ellerton, 2018). The set of *dispositions* includes attentiveness, active open-mindedness, intellectual humility, intellectual autonomy, scepticism, openness to criticism, fair-mindedness in considering alternative positions, a willingness to concede points and self-correct, and vigilance about biases (Paul & Elder, 2008). Collaborative reasoning requires both *cognitive skills* (such as rigorous assessment of evidence, logical inference-making, and discerning evaluation of criteria) and *collaborative skills* (such as active listening, responsiveness, acknowledgement of common ground, and de-escalation of confrontation) (Chen et al., 2023). Collaborative reasoning also requires adherence to an array of inquiry *values* according to which arguments on either side of a controversy can be tested; these values include clarity, consistency, coherence, relevance, accuracy, breadth and depth of inquiry (Ellerton, 2017).

Kuhn (2003) indicates that participants in collaborative reasoning must begin by understanding the purpose of inquiry and argument, so that the benefits of the the activity can be seen to justify the effort required. In her seminal book *Education for Thinking*, Kuhn (2005) theorises that that attaining such understanding marks the transition from relativism to evaluativism: the final stage of a four-stage process of epistemological development. Empirical studies reported in the same book suggest that the epistemological value of collaborative reasoning becomes self-evident to students in the course of participating in it. By engaging frequently in collaborative reasoning, students come to appreciate its power and value; they eventually internalise the dialectic structure of argument and use it as a framework for their individual reasoning, such that they "think in terms of issues and claims, with facts summoned in their service, rather than the reverse" (Kuhn, 2005, p. 131).

Discussion

Synthesis of Findings

The current ecological crisis demands serious rethinking of educational goals in order to equip students with the collective agency needed to address systemic problems. A transformative conception of ecological citizenship recognises the importance of collective action and public spiritedness, and encourages students to engage with broader societal structures and injustices. Collaborative reasoning plays a crucial role in preparing students to become ecological citizens who are capable of participating in a deliberative democracy. Education in collaborative reasoning fosters deliberative ecological citizenship by enabling students to engage in meaningful discussions that challenge prevailing norms. It fosters

ethical competence, cognitive and dialogic skills and dispositions, together with an appreciation of the values of inquiry that are needed for strengthening arguments. Collaborative reasoning thus prepares students to participate as active, informed ecological citizens capable of working together to shape a more sustainable future.

Identification of Gaps

There is a scarcity of longitudinal studies that examine the long-term effects of collaborative reasoning practices on students' civic engagement and ecological citizenship after they leave school. It is therefore unclear whether early experiences of collaborative reasoning influence their civic and ecological engagement in adulthood.

Notwithstanding Larrain et al.'s (2021) endorsement of collaborative reasoning as an intrinsically inclusive practice, questions remain about securing students' equitable participation. Differences in personality and behaviour can result in quieter students' voices being overshadowed by more dominant students (Moran, 2016). Cultural preference for collectivist rather than individualist value orientation may disadvantage students from certain cultural groups who are concerned to maintain in-group harmony (LeFebvre & Franke, 2013). Differences in argumentative style between genders, as discussed by Noroozi et al. (2018), deserve further investigation, as does the potential impact of intersecting social identities.

While the literature acknowledges the utility of collaborative reasoning in ecological citizenship education, there are few systematic empirical studies evaluating how this is integrated into existing school curricula. Similarly, the assessment of skills and dispositions developed through collaborative reasoning is under-explored. Finally, there is a shortage of research into how professional development can best prepare teachers to facilitate collaborative reasoning in their classrooms.

Conclusion

Summary of Key Points

As today's youth confront the climate and ecological crises, education must adapt to equip them with the knowledge, skills, and values needed for active civic engagement. Current school curricula typically prioritise job readiness over ecological citizenship. In this regard, they neglect to develop young people's civic power and democratic imagination. What is needed is a robust conception of ecological citizenship that emphasises collective action and institutional responsibility. This would overcome problematic narratives of individual responsibility that deflect accountability away from state institutions.

This review has investigated the impact of integrating collaborative reasoning into education through a dialogic pedagogy. Collaborative reasoning is seen foster meaningful discussions about controversial ecological topics in an environmental akin to a public forum. Collaborative reasoning equips students with skills to reason together, and in so

doing, to develop critical skills such as evidence assessment, deliberation, argumentation, and public advocacy. Arguably, engaging in collaborative reasoning not only deepens students' understanding of ecological issues, but also prepares them for responsible civic engagement in the service of a more just and sustainable future.

While collaborative reasoning holds significant promise for equipping students to participate as ecological citizens in a deliberative democracy, the literature reflects several gaps that need to be addressed. A critical examination reveals that without systemic changes in educational practices, the potential of collaborative reasoning to foster genuine democratic engagement may remain unrealised.

Research Implications

Future research should investigate the long-term impacts of school-based collaborative reasoning activities on subsequent civic engagement. Longitudinal studies would be helpful in assessing the impact of these activities on students' experience of ecological citizenship and their ability to participate in deliberative democracy over time.

Additional research is needed to explore the efficacy of collaborative reasoning in diverse educational settings. Research should investigate how to achieve equitable participation of all students, with particular attention to empowering underrepresented voices in discussions about ecological issues. This would have implications both for classroom dialogues and for broader socio-political decision-making processes.

Given that much of the literature on collaborative reasoning focuses on Western educational contexts, there is a need for further study of the implementation of collaborative reasoning in non-Western contexts and in marginalised communities that practise different communication styles.

There is also an opportunity to explore how an intersectional approach—one that considers the effects of intersecting social identities like race, gender, and class on students' experiences of ecological citizenship—can deepen our understanding of collaborative reasoning about these issues within diverse student populations.

There is scope for more systematic research into effective models for implementing collaborative reasoning in school curricula. Future research might investigate how existing curricula can be restructured to more effectively integrate collaborative reasoning for ecological citizenship.

Similarly, there is an opportunity to investigate the assessment of collaborative reasoning skills and dispositions. Such assessment would help in determining the effectiveness of collaborative reasoning interventions, although it may be difficult to design given that traditional assessment methods are unlikely to adequately capture the nuances of group interactions.

Finally, future research might focus on the training needs of teachers in relation to facilitating collaborative reasoning for ecological citizenship. An investigation of best

practice models in teacher professional development would help to make future training programs more effective in equipping teachers with the skills and confidence they need for success in this domain.

References

Alexander, R. (2008). *Essays on Pedagogy.* Routledge. https://doi.org/10.4324/9780203609309

Berkowitz, A. R., Ford, M. E., & Brewer, C. A. (2005). A framework for integrating ecological literacy, civics literacy and environmental citizenship in environmental education. In E. A. Johnson & M. J. Mappin (Eds.), *Environmental education or advocacy: perspectives of ecology and education in environmental education* (pp. 227–265). Cambridge University Press.

Bradshaw, C. J. A., Ehrlich, P. R., Beattie, A., Ceballos, G., Crist, E., Diamond, J., Dirzo, R., Ehrlich, A. H., Harte, J., Harte, M. E., Pyke, G., Raven, P. H., Ripple, W. J., Saltré, F., Turnbull, C., Wackernagel, M., Blumstein, D. T. (2021). Underestimating the challenges of avoiding a ghastly future. *Frontiers in Conservation Science, 1*, Article 615419, 1–10. https://doi.org/10.3389/fcosc.2020.615419

Brett, P., & Thomas, D. (2014). Discovering argument: Linking literacy, citizenship education, and persuasive advocacy. *Journal of Social Science Education, 13*(4), 66–77. https://doi.org/10.2390/jsse-v13-i4-1350

Brozović, D. (2022). Societal collapse: A literature review. *Futures: The Journal of Policy, Planning and Futures Studies, 145*, Article 103075. https://doi.org/10.1016/j.futures.2022.103075

Carvalho, A. (2007). Communicating global responsibility?: Discourses on climate change and citizenship. *International Journal of Media and Cultural Politics, 3*(2), Commentaries, 180–183. https://hdl.handle.net/1822/27559

Chen, J., Lin, T. -J., Wilkinson, I. A. G., Ha, S. Y., & Paul, N. (2023). Linkages between cognitive and social dialogue patterns during collaborative small-group discussions. *Learning and Instruction, 87*, Article 101795. https://doi.org/10.1016/j.learninstruc.2023.101795

Chinn, C. A., & Clark, D. B. (2013). Learning through collaborative argumentation. In C. E. Hmelo-Silver, C. A. Chinn, C. K. K. Chan, & A. M. O'Donnell (Eds.) *International Handbook of Collaborative Learning* (pp. 314-332). Taylor & Francis.

Commissioner for Children and Young People—South Australia (2023). *Barriers to civic participation for children and young people: Issue brief (02).* https://www.ccyp.com.au/wp-content/uploads/2023/04/Issue-Brief-Participation-Barriers.pdf

Cope, B., & Kalantzis, M. (2000). *Multiliteracies: Literacy learning and the design of social futures.* Routledge.

Cutter-Mackenzie, A. & Rousell, D. (2019). Education for what? Shaping the field of climate change education with children and young people as co-researchers. *Children's Geographies, 17*(1), 90–104. https://doi.org/10.1080/14733285.2018.1467556

Ellerton, P. (2017, October). *On critical thinking and collaborative inquiry.* NSW Department of Education National Initiatives & Performance Directorate. https://education.nsw.gov.au/content/dam/main-education/teaching-and-learning/education-for-a-changing-world/media/documents/Peter-Ellerton_Critical-Thinking.pdf

Ellerton, P. (2018). *Teaching for thinking: Explaining pedagogical expertise in the development of student thinking through the skills, values and virtues of inquiry* [Doctoral dissertation]. University of Queensland.

Erbstein, N. (2013). Children, citizenship and environment: Nurturing a democratic imagination in a changing world by Bronwyn Hayward [Review]. *Children, Youth and Environments, 23*(3), Collected Papers, 194–196. https://doi.org/10.7721/chilyoutenvi.23.3.0194

Goodling, L. B. (2015). *Civic engagement 2.0: A blended pedagogy of multiliteracies and activism* [Doctoral dissertation]. Georgia State University. https://doi.org/10.57709/7027593

Graff, J. (2022). Debating as a deliberative instrument in educational practice. *Studies in Philosophy and Education, 41*, 613–633. https://doi.org/10.1007/s11217-022-09844-6

Hadjichambis, A. C., & Paraskeva-Hadjichambi, D. (2020). Education for environmental citizenship: The pedagogical approach . In A. C. Hadjichambis et al. (Eds.), *Conceptualizing environmental citizenship for 21st century education* (pp. 237–261). Springer. https://doi.org/10.1007/978-3-030-20249-1_15

Hayward B. (2020). *Children, citizenship and environment: #Schoolstrike edition*. Routledge. http://dx.doi.org/10.4324/9781003000396

Hayward, B., Selboe, E., & Plew, E. (2015). Citizenship for a changing global climate: Learning from New Zealand and Norway. *Citizenship, Social and Economics Education, 14*(1), 19–27. https://doi.org/10.1177/20471734155775

Heggart, K. & Flowers, R. (2020). Justice-oriented, 'thick' approaches to civics and citizenship education in Australia: Examples of practice. In *The Palgrave handbook of citizenship and education* (pp. 403-418). Springer. https://doi.org/10.1007/978-3-319-67905-1

Hobbs, M. (2015). The sociology of spin: An investigation into the uses, practices and consequences of political communication. *Journal of Sociology, 52*(2), 371-386. https://doi.org/10.1177/14407833145624

The Institute for Philosophy in Public Life (2012). 'The public philosophy experiment': Guest Clay Jenkinson interviews host Jack Russell Weinstein [Audio podcast episode]. In *Why? Philosophical discussions about everyday life.* https://philosophyinpubliclife.org/2012/11/11/the-public-philosophy-experiment-guest-clay-jenkinson-interviews-host-jack-russell-weinstein/

Johnston, J. D. (2019). Climate change literacy to combat climate change and its impacts. In W. L. Filho, A. M. Azul, L. Brandli, P. G. Özuyar, & T. Wall (Eds.), *Encyclopedia of the UN Sustainable Development Goals (climate action)*. Springer Nature. https://doi.org/10.1007/978-3-319-71063-1_31-1

Kellner, D. (2002). New media and new literacies: Reconstructing education for the new millennium. In L. Lievroux, & S. Livingstone (Eds.), *The handbook of new media* (pp. 90-104). Sage. https://doi.org/10.4135/9781446206904.n8

Kymlicka, W. (2012). Responsible citizenship. *Trudeau Foundation Papers, 4*(2), 55–87. http://www.trudeaufoundation.ca/sites/default/files/u5/trudeaupapersvol4no2_en_num.pdf

Kuhn, D. (2003, Summer). *Understanding and valuing knowing as developmental goals*. Liberal Education.

Kuhn, D. (2005). *Education for thinking.* Harvard University Press.

Larrain, A., Fortes, G., & Rojas, M. T. (2021). Deliberative teaching as an emergent field: The challenge of articulating diverse research agendas to promote educational experiences for citizenship. *Frontiers in Psychology*, *12*, 660825, 1–15. https://doi.org/10.3389/fpsyg.2021.660825

LeFebvre, R., Franke, V. (2013). Culture matters: Individualism *vs.* collectivism in conflict decision-making. *Societies*, *3*(1), 128-146. https://doi.org/10.3390/soc3010128

Lockrobin, G. (2022). *Too small to make a difference? P4C and the ethical importance of freedom and responsibility* [presentation]. Development Education Centre South Yorkshire AGM.

Lucas, A. (2021). Investigating networks of corporate influence on government decision-making: The case of Australia's climate change and energy policies. *Energy Research & Social Science, 81*, Article 102271. https://doi.org/10.1016/j.erss.2021.102271

Lynch, M. (2012). Democracy as a space of reasons. In J. Elkins and A. Norris (Eds), *Truth and democracy* (pp. 114–129). University of Pennsylvania Press. https://doi.org/10.9783/9780812206227.114

Martin, B (2014). *Controversy manual.* Irene Publishing. https://www.bmartin.cc/pubs/14cm/14cm.pdf

Monbiot G. (2021, October 30). Capitalism is killing the planet – it's time to stop buying into our own destruction. *The Guardian.* https://www.theguardian.com/environment/2021/oct/30/capitalism-is-killing-the-planet-its-time-to-stop-buying-into-our-own-destruction

Moran, H. (2016). *Listening to their silence: The learning experiences of quiet students in a middle school environment* [Master's thesis]. University of Canterbury.

Moshman, D. (2020). *Reasoning, argumentation and deliberative democracy.* Routledge/Taylor & Francis Group. https://psycnet.apa.org/record/2020-80718-000

Niebert, K. (2019). Effective sustainability education is political education. *On Education: Journal for Research and Debate, 2*(4), 1–5. https://doi.org/10.17899/on_ed.2019.4.5

Nishiyama, K. (2019). Enabling children's deliberation in deliberative systems: Schools as a mediating space. *Journal of Youth Studies, 4*(22), 473–488. https://doi.org/10.1080/13676261.2018.1514104

Noroozi, O., Hatami, J., Bayat, A., van Ginkel, S., Biemans, H. J. A., & Mulder, M. (2018). Students' online argumentative peer feedback, essay writing, and content learning: Does gender matter? *Interactive Learning Environments*, *28*(6), 698–712. https://doi.org/10.1080/10494820.2018.1543200

Parra, G., Hansmann, R., Hadjichambis, A. C., Goldman, D., Paraskeva-Hadjichambi, D., Sund, P., Gericke, N., & Conti, D. (2020). Education for environmental citizenship and education for sustainability. In A. C. Hadjichambis et al. (Eds), *Conceptualizing environmental citizenship for 21st century education* (pp. 149–160). Springer. https://doi.org/10.1007/978-3-030-20249-1_10

Paul, R., & Elder, L. (2008). *The miniature guide to critical thinking concepts and tools.* The Foundation for Critical Thinking.

Polizzi, G. (2020). Information literacy in the digital age: Why critical digital literacy matters for democracy. In S. Goldstein (Ed.), *Informed societies: Why information literacy matters for citizenship, participation and democracy* (pp. 1–23). Facet Publishing.

Rapanta, C., Vrikki, M., Evagorou, M. (2020). Preparing culturally literate citizens through dialogue and argumentation: Rethinking citizenship education. *The Curriculum Journal, 32*(3), 475–494. https://doi.org/10.1002/curj.95

Reiner, M. (2017). *Environmental citizenship and the neoliberal state: Good policy or greenwash?* Australian Policy and History Network. https://aph.org.au/2017/11/environmental-citizenship-and-the-neoliberal-state-good-policy-or-greenwash/

Saner, S. (2022). P4C as microcosm of civil society. *Precollege Philosophy and Public Practice 4*, 69-90. https://doi.org/10.5840/p42021111519

Schild, R. (2016). Environmental citizenship: What can political theory contribute to environmental education practice? *The Journal of Environmental Education, 47*(1), 19–34. https://doi.org/10.1080/00958964.2015.1092417

Schreiber, K. (2017). Conversations that matter: How a thriving public sphere makes better citizens and better neighbors. *Democracy in Transition? Neighbor, Nation and the Politics of Now, 3*(1), Article 1, 1–12. https://scholar.valpo.edu/ilasbw/vol3/iss1/1

Segal, A., Pollak, I. & Lefstein, A. (2017). Democracy, voice and dialogic pedagogy: the struggle to be heard and heeded. *Language and Education, 31*(1), 6–25. https://doi.org/10.1080/09500782.2016.1230124

Sowey, M. (2022, May 28). A thriving public sphere. *The Philosophy Club*. https://thephilosophyclub.com.au/2022/05/28/thriving-public-sphere/

Sowey, M. (2024, June). Renewing democracy with collaborative reasoning. *Meanjin 83*(2), 19–23.

Spratt, D & Dunlop, I. (2018). *What lies beneath: The understatement of existential climate risk*. Breakthrough National Centre for Climate Restoration.

Tingle, L. (2024, June). Discourse correction. *The Monthly.* https://www.themonthly.com.au/issue/2024/june/laura-tingle/discourse-correction

Vasist, P.N., Chatterjee, D. & Krishnan, S. (2024). The polarizing impact of political disinformation and hate speech: A cross-country configural narrative. *Information Systems Frontiers, 26*, 663–688. https://doi.org/10.1007/s10796-023-10390-w

Veugelers, W. (2023). *Moral and political dimensions of critical-democratic citizenship education: Enhancing social justice, a global orientation, and equity in schools and society*. Brill.

Victorian Curriculum and Assessment Authority (no date). *Victorian Curriculum, F–10: Civics and citizenship.* State Government of Victoria. https://victoriancurriculum.vcaa.vic.edu.au/the-humanities/civics-and-citizenship/curriculum/f-10

Williams, P. D. (2020). Raising guardrails: The role of the political commentator in a post-expert age. *Queensland Review, 27*(1), 100–115. https://doi.org/10.1017/qre.2020.7

Willis, R., Curato, N., & Smith, G. (2022). Deliberative democracy and the climate crisis. *WIREs Climate Change, 13*(2), 1–14. https://doi.org/10.1002/wcc.759

Worley, P. (2018). Plato, metacognition and philosophy in schools. *Journal of Philosophy in Schools, 5*(1), 76–91. https://doi.org/10.21913/JPS.v5i1.1486