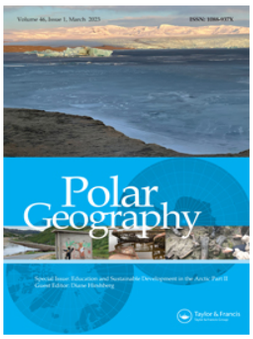

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RESEARCH ARTICLE

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Model Arctic Council for sustainable development

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ABSTRACT

I argue that Model Arctic Council (MAC) has a role to play in Arctic sustainable development. Like the better-known Model United Nations (MUN), MAC is a form of simulation pedagogy, an experiential learning process in which secondary-school pupils or university students comprehend the nature and importance of complex issues such as sustainable development by imagining themselves as diplomats trying to negotiate a common approach to them. After demonstrating the educational value of diplomatic simulations in general, I introduce MUN as its most popular form, and I assess a case-study of a global MUN program designed to advance knowledge and action among youth in respect of the UN Sustainable Development Goals. This case-study, taken together with the structure, subject-matter and educational value of MAC itself, strongly suggests that MAC can be used to advance knowledge and action among both Arctic and non-Arctic youth in respect of Arctic sustainable development, including understanding how the notion of sustainable development is both contested in general and contextualized in the Arctic. Combining this analysis with professional experience, I offer practical recommendations to educators about the effective design and use of MAC and other simulation pedagogies.

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Education, sustainable development and the Arctic

Education is not only an end of sustainable development, but also a means to it. As our present path of development shows, we can no longer live sustainably without first learning how. Correcting our unsustainable path will also impose social and economic burdens that people will not bear without first learning why.

We have been teaching and learning about sustainable development for over 30 years since the Brundtland report first introduced the idea into public discourse (WCED, 1987). Regrettably, however, we have still not collectively agreed how to live sustainably. This is because we have not yet been able to make the vexed moral and political choices that sustainable development requires (Owens, 2003).

Indeed, it is not even clear that we fully understand these choices. The United Nations, for instance, claims that their 2030 Sustainable Development Goals (SDGs) have 'mapped

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the road to sustainable development' (United Nations General Assembly [UNGA], 2015, article 53), and that they are 'integrated and indivisible' across economic, social and environmental dimensions (UNGA, 2015, preamble). But shortly before the UN officially adopted them, a global scientific review questioned whether the SDGs could in fact be achieved together (International Council for Science [ICSU] & International Social Science Council [ISSC], 2015). Considering the environmental consequences of our present methods of social and economic development, they probably cannot be (Spaiser et al., 2017; Wackernagel et al., 2017). In other words, the SDGs are themselves unsustainable, at least the way things work now.

For some people, this sort of incoherence is perfectly exemplified by the idea of sustainable development in the Arctic. In the popular imagination, the Arctic is one of the last unpeopled and unsullied wildernesses on the planet (Young & Einarsson, 2004a). It is also warming at more than twice the global mean (Arctic Monitoring and Assessment Programme [AMAP], 2019), and on the popular view this 'canary-in-the-coal-mine' of climate change will soon succumb to our obsession with fossil-fuel-driven economic growth. But should the Arctic melt and the polar bear go extinct, we can only blame ourselves. What is more, we may be next! In this morality play of climate disaster and redemption, we must save the Arctic from development at all costs, since no Arctic development is sustainable. As for education's role, it can do no better than to teach US to avoid the mistake of believing otherwise.

The people who call the Arctic home, however, tend to assume instead that Arctic sustainable development is possible. Indeed, it may even be necessary, so that they can obtain the cultural, social and economic capital they need to overcome the problems they have inherited from colonization. When asked for their views, they rate developmental concerns as highly as environmental ones (Ackrén & Nielsen, 2021; Gordon Foundation, 2015). They presumably wish to waste no time with the popular view, from which they are largely absent except perhaps as victims. They presumably wish to turn directly to the sustainable development of their own communities.

I sympathize with their view. I shall assume here, too, that sustainable development can be coherently understood, including in the Arctic. This is to say I shall assume that the moral and political choices required for Arctic sustainable development can be conscientiously made, or at least thoroughly clarified, however contentious or uncertain that may be (Kristoffersen & Langhelle, 2017; Middleton et al., 2021; Steinberg et al., 2015). My purpose in this paper is instead to explore how education can help to inform these choices, and to promote whatever idea of Arctic sustainable development follows from them.

Unfortunately, a further problem lurks within the idea of sustainable development. The same review that faulted the SDGs for inconsistency also faulted them for narrowly reflecting the perspectives and priorities of government (ICSU & ISSC, 2015). The burden of making and abiding by the hard choices of sustainable development falls at least as much to communities and individuals, and they may have their own very different perspectives and priorities. Though a broad spectrum of governments drafted the SDGs, it may be that government was not best placed to do so (Easterly, 2015b). It may be that there are as many versions of sustainable development as there are systems of value that people share (Owens, 2003).

Arctic educators, students and pupils concerned with sustainable development therefore face a double challenge. They must make sense of the idea of sustainable development in a way that resolves its internal tensions, and they must define it in a way relevant to the Arctic context (Degai & Petrov, 2021; Gad et al., 2017, 2019). Indeed, they must define it in a way

relevant to their own Arctic context, with its own environmental, economic, cultural and political particularities. For another popular fallacy is that there is 'one Arctic' that is essentially the same all the way around the Pole.

In what follows, I shall try to bear in mind this double challenge as I make a small suggestion – but I hope a constructive one – about the role education can play in Arctic sustainable development. My suggestion involves the educational technique of pedagogical simulation, in which pupils and students learn about complex and difficult problems by playing the role of an expert trying to solve them. Specifically, it involves diplomatic simulation, in which pupils or students play the roles of world leaders meeting together to address contentious global issues such as sustainable development.

I shall touch on a few types of diplomatic simulation, but I shall focus ultimately on simulations of the Arctic Council, over two dozen of which I have designed and run at secondary schools, universities and online. I suggest that Model Arctic Council, as it is known, can help meet the double challenge involved in teaching and learning about Arctic sustainable development, while offering other valuable educational benefits at the same time. I also suggest that Model Arctic Council can serve as a means for Arctic sustainable development itself, by inspiring pupils and students to take action in their own communities.

In support of these suggestions, I shall first consider the general educational value of diplomatic simulations, especially of Model United Nations, a long-standing and popular type. I shall then introduce the example of a project that attempts to link Model United Nations directly to sustainable development, before turning finally to Model Arctic Council. A certain amount of theoretical stage-setting will be necessary, but this paper is also grounded in professional experience. I aim not to present theoretical or scientific findings, but to offer practical recommendations that I hope will help pupils, students and educators both within and without the Arctic.

The educational value of diplomatic simulations

Diplomatic simulations are a type of experiential learning. In this kind of learning, direct experience is transformed into knowledge by reflecting upon the experience, distilling new concepts from it, and refining those concepts through further experience (Kolb, 1984). Participants in diplomatic simulations imaginatively undergo the experience of negotiating solutions to global problems at an international diplomatic conference. Through an experiential learning process, they transform their imaginative experiences into new knowledge.

Some of this knowledge will be factual, such as information about the issues debated, the countries represented, and the international organizations simulated. Some will be conceptual, such as ideas about effective diplomatic strategy, the conduct of international relations, and the causes of global problems. And some will be practical, such as the art of communicating effectively with others, and the skill to forge agreement with those who take a different view of the meaning or importance of things. Ideally, participants will test all this new knowledge by applying it to further experience, whether in another simulation, through academic study, or by taking action in the community.

Educators with experience of diplomatic simulation generally agree strongly on its positive educational value. Objective supporting evidence, however, has proven elusive (Baranowski & Weir, 2015; Duchatelet et al., 2019). With many variables at play in a simulation, it can be difficult to capture the determinants of learning, and educators

rarely have the chance to run multiple simulations in controlled settings. Educators may also pay insufficient attention to the hard task of designing simulations to allow for rigorous evaluation, relying instead on impressions of how pupils or students respond, which is usually with enjoyment, satisfaction and a sense of having learned something.

Evidence in favor of diplomatic simulations has therefore tended to be anecdotal, derived mostly from classroom observation (e.g. Belloni, 2008; Chasek, 2005; Crossley-Frolick, 2010; Engel et al., 2017; Hatipoglu et al., 2014; Hobbs & Moreno, 2004; Jefferson, 1999; Kanner, 2007; Kille, 2002; Lantis, 1998; Obendorf & Randerson, 2012; Youde, 2008). If not anecdotal, it has tended to be subjective, based on self-reported data from participant surveys (e.g. Andonova & Mendoza-Castro, 2008; Boylan et al., 2021; Ehrlander & Boylan, 2018; Galatas, 2006; Hammond & Albert, 2020; Hazelton & Jacob, 1983; Hazelton & Mahurin, 1986; Pettenger et al., 2014; Shellman & Turan, 2006; Speca, 2019; Van Dyke et al., 2000). Some educators have supplemented subjective studies by testing participants on new knowledge, but without a control group (e.g. Calossi & Coticchia, 2018; Jesuit & Endless, 2018).

The results of controlled study have been mixed. Some researchers find that diplomatic simulations deliver increased knowledge and beneficial shifts in reasoning (e.g. Baranowski, 2006; Frederking, 2005; Lay & Smarick, 2006; Powner & Allendoerfer, 2008). Others find no such results (e.g. Raymond, 2010; Raymond, 2012; Raymond, 2014; Raymond & Usherwood, 2013). Still others find that diplomatic simulations instead deliver improved knowledge retention in the longer term (Bernstein & Meizlish, 2003; Nishikawa & Jaeger, 2011), or benefits such as empathy for and understanding of others, appreciation of the complexities involved in international politics, and skills in critical thinking and communication (Krain & Lantis, 2006).

We should bear in mind two things about this body of research. First, much of it concerns the effectiveness of diplomatic simulations in the university classroom. It aims at discovering whether they enhance learning relative to lectures, justifying the extra demands they make on the time and effort of lecturer and student alike (Asal, 2005; McIntosh, 2001). As we shall see, however, diplomatic simulations are a popular extracurricular activity at both university and secondary school, so the question of a trade-off with lecture-style teaching need not detain us.

Second, research finding that diplomatic simulations deliver different and longer-lasting educational benefits reminds us that educators do not wish only to impart academic knowledge. They also wish to inspire their pupils and students, and to equip them to contribute to society. Diplomatic simulations arguably belong to a broad, liberal style of education that cultivates critical thinking, moral reasoning, responsible citizenship, civic engagement, and communication and interpersonal skills (Bernstein, 2008; Mariani & Glenn, 2014; Phillips & Muldoon, 1996; Taylor, 2013).

Indeed, while it may be hard to generalize from the anecdotal or subjective studies favoring diplomatic simulations, taken together they strongly suggest a range of valuable educational benefits:

- Significant and better-retained learning about facts and concepts associated with the simulation – and no study has yet found that simulations result in little or no learning, or in knowledge loss;
- Teaching better tailored to a variety of learning preferences, in line with research suggesting that standard book- and classroom-learning does not suit all pupils and students best (Brock & Cameron, 1999; Fox & Ronkowski, 1997);

- Greater understanding of the ambiguities and underlying power asymmetries involved in international politics and diplomacy, and of the constraints involved in negotiating common solutions to global problems;
- Improved independent learning skills through proper preparation for the simulation, including the use of primary sources;
- Improved communication and interpersonal skills, including self-confidence speaking in public and dealing with others who disagree;
- Awareness and appreciation of diverse or conflicting perspectives, and of differing beliefs, values and cultures;
- Team-based, cooperative learning in which pupils and students co-construct new knowledge together with the educator and each other;
- Enjoyable, motivating and empowering learning experiences that stand out as memorable and influential moments in an educational career.

It is perhaps little wonder, then, that diplomatic simulations have become commonplace in politics and international relations classrooms despite the extra time and effort they require (Ishiyama, 2013). Many guides and suggestions for designing, running and assessing educationally sound diplomatic simulations are now readily available (e.g. Asal, 2005; Asal & Blake, 2006; Hertel & Millis, 2002; Obendorf & Randerson, 2013; Petranek, 2000; Shaw & Switky, 2018; Smith & Boyer, 1996; Starkey & Blake, 2001; Steinwachs, 1992; Wheeler, 2006).

Model United Nations and sustainable development[1]

The use of diplomatic simulations in the classroom has very much followed rather than led their popularity as an extracurricular activity. The extracurricular diplomatic simulation enjoying by far the broadest currency at both school and university is Model United Nations (MUN). In MUN simulations, pupils or students play the roles of representatives from UN member states or UN-accredited organizations at meetings of the General Assembly, Security Council and other UN bodies.

MUN developed in the late 1940s, very shortly after the UN was founded (Muldoon, 1995). It evolved from Model League of Nations simulations dating back to the 1920s, and it grew into a worldwide phenomenon over subsequent decades. By the UN's fiftieth anniversary, MUN was popular and enduring enough for proponents to dub it an 'educational tradition' (Muldoon & Myrick, 1995, p. 99). By the UN's seventy-fifth anniversary, the newcomer could be overwhelmed with the sheer number and variety of available MUNs (Hazen, 2019).

No definitive count of current MUNs exists. In 2009, the UN reported that over 400,000 pupils and students took part annually in over 400 simulations in 35 countries (Crossley-Frolick, 2010). But these figures predate the rapid growth of MUN in India and China (Agarwal, 2014; Qian, 2013), and they are likely appreciably higher today. Though the Covid-19 pandemic temporarily interrupted such gatherings, every year the world's largest MUNs, such as NMUN in New York or THIMUN in The Hague, attract thousands of 'delegates' from hundreds of educational institutions in well over 100 countries around the world (National Model United Nations [NMUN], n.d.; The Hague International Model United Nations [THIMUN], n.d.).

MUN typically takes place in pupil- or student-led clubs, with supervision or advice from teachers or faculty. It offers the same educational benefits that we have already seen classroom simulations offer, plus the opportunity for youth to develop leadership and administrative skills through partnership with adult mentors outside the classroom (Levy, 2016). Most importantly for our purposes here, MUN can inspire pupils and students to adopt more internationally-minded attitudes and goals (Coticchia et al., 2020), to feel more personal political empowerment (Levy, 2018), and to engage directly in political affairs (Reitano, 2003).

Considering these benefits and outcomes, MUN can seem an end in itself. Yet MUN's capacity to encourage international attitudes and political engagement hints at a further purpose. In October 2017, at a meeting of MUN proponents and UN officials, an organization called MUN Impact was established to try to achieve such a purpose – namely, to use MUN to promote sustainable development, with the SDGs as a thematic framework.

MUN Impact is not the first or only attempt to link diplomatic simulation with sustainable development. University educators have experimented, for example, with MUNs based on the Millennium Development Goals (Crossley-Frolick, 2010) and a hypothetical climate crisis (Matzner & Herrenbrück, 2017). At the UN itself, the World Meteorological Organisation has collaborated with a school to run a MUN themed around climate change (Hassan, 2014), and the Office of Drugs and Crime have developed resources for simulating rule-of-law and access-to-justice issues in MUNs (United Nations Office of Drugs and Crime [UNODC], n.d.). And as we shall see, Model Arctic Council also naturally revolves around sustainable development issues.

MUN Impact is unique, however, in making sustainable development a primary goal of diplomatic simulation. It describes itself as 'a global community that believes in the power of Model United Nations to inform, inspire, and motivate its participants to action in support of the SDGs' (MUN Impact, n.d.). This community consists of affiliated MUN clubs, which have committed to simulating UN work on the SDGs, and to taking direct action to advance the SDGs in their local communities. As the umbrella organization, MUN Impact provides its affiliates with MUN- and SDG-related learning opportunities and resources; an online platform on which they can share their efforts; and events at which they can meet interested UN officials, sustainable development experts and each other.

As we have already noted, however, it is no small irony that the SDGs themselves call attention to the problems with the idea of sustainable development. How can this idea, of which the international community have not yet made consistent sense, and which might vary considerably depending on one's perspectives and priorities, serve as an educational device? One trenchant critic has backhandedly suggested that the SDGs perhaps work best as 'idealistic rhetoric' to motivate young people in rich countries to care about the world's poor (Easterly, 2015a).

All the same, we have also already noted that diplomatic simulations can temper the idealism of youth by impressing upon them the complexities and constraints involved in negotiating common approaches to difficult global issues. They can also instil greater appreciation for differing perspectives and priorities. However problematic the SDGs undoubtedly are, they at least represent some sort of international consensus on the equally problematic idea of sustainable development. For MUN Impact, the many SDG targets and indicators also conveniently map out connections between MUN and direct community action.

In this context, it is noteworthy that MUN Impact has made inroads among youth in developing countries, who live more closely with seemingly intractable problems of sustainable development. In what MUN Impact calls a 'paradigm-shifting moment' for MUN, a Nigerian secondary school established a new, MUN Impact-affiliated club not 'for MUN's sake' but explicitly to catalyze learning and action related to sustainable development (L. Martin, personal communication, February 26, 2020 & March 10, 2020). In Afghanistan, prior to the recent Taliban coup, the country's first-ever MUN club affiliated with MUN Impact to advance local sustainable development projects supporting education and female empowerment.

MUN Impact supports youth from these and other developing countries, who often cannot travel to the large international MUNs in Europe or the USA, by hosting a wholly online MUN conference. It also offers an online training program for prospective MUN participants in multiple languages, including Arabic, English, French, Spanish and Russian. All in all, MUN Impact claims over 28,000 youth from 170 countries and territories in its community (L. Martin, personal communication, January 11, 2022).

While many of the youth engaging with MUN Impact programs in developing countries likely come from the social and economic elite, these examples nevertheless indicate that MUN Impact's model can gain traction in places where the challenges of sustainable development are greatest. Indeed, youth in developing countries thus far appear somewhat more eager to affiliate with MUN Impact than supposedly idealistic rich-world youth (L. Martin, personal communication, February 26, 2020).

In April 2019, MUN Impact collaborated with UN officials to host an MUN Youth Summit at the UN's New York headquarters, at which MUN clubs could present SDG-related work. Over 400 pupils and students from 30 countries attended, showcasing activities including large-scale projects to reforest denuded areas or provide access to clean water (United Nations Department of Global Communications [UNDGC], n.d.). For one schoolteacher and MUN Impact director, the summit was 'quite an eye-opener' as to the scale of direct action that MUN could help to inspire (N. Dignum, personal communication, February 17, 2020).

Despite these encouraging signs, considerable challenges remain. Awareness of the SDGs among youth worldwide is extremely low, limiting MUN Impact's influence. MUN clubs affiliated with MUN Impact thus far represent only a tiny fraction of the many thousands around the world today, and they include none hosting the best-known and best-attended simulations. MUN Impact also lacks a mechanism for evaluating the effect their affiliates have on local sustainable development. And despite the MUN Youth Summit, MUN Impact believes the UN could take better advantage of MUN for educational outreach, and to promote the SDGs (L. Martin, personal communication, February 26, 2020 & March 10, 2020).

It is too early to judge the performance of this young organization, and MUN Impact may yet manage to overcome these challenges. In collaboration with other MUN proponents, it has recently launched a worldwide survey of MUN clubs designed to illuminate the connections between MUN participation, sustainable development and global citizenship (L. Martin, personal communication, March 10, 2020). Until MUN Impact processes and publishes the results, it is difficult to evaluate conclusively its claim that MUN can promote sustainable development. Nonetheless, the anecdotal evidence suggests the idea is worth pursuing practically.

Model Arctic Council and sustainable development

What then of Model Arctic Council, or MAC? Can it help to promote Arctic sustainable development in a similar way? Our discussion up to this point strongly suggests that it can, and educational experience with MAC bears out this conclusion.

MACs are diplomatic simulations at which pupils or students play the roles of representatives to the Arctic Council, discuss pressing issues facing the Arctic, and try to build consensus around solutions. Relative to MUNs, MACs are rare. Perhaps no more than several dozen MACs have taken place since 2010 (Speca, 2019), and probably not many more since the Arctic Council was founded in 1996. Even so, a few active MAC programs now exist at multiple educational levels:

- The UArctic MAC for postgraduates and advanced undergraduates, first piloted in 2014 and – with the recent exception of Russia – organized biennially since 2016 at a university in the Arctic state concurrently holding the rotating chair of the Arctic Council (Boylan et al., 2021);
- University MACs chiefly for undergraduates, of which there are one or two currently active annual programs:
  - The various Polar Aspect university MACs in the UK, Canada and online, organized annually since 2019 (Polar Aspect, n.d.)
  - Possibly the Moscow Youth International MAC in Russia, launched in 2015 (Moscow State Institute for International Relations [MGIMO] Arctic Student Research Club, n.d.);
- School MACs for pupils of typically 15–18 years of age, of which likely the only existing program is the various Polar Aspect schools MACs in the UK, Spain and online, organized annually since 2016 (Polar Aspect, n.d.; Speca, 2019).

Educators with experience of MAC – including myself – have written in detail about its educational aims and benefits, about how it works in practice at both school and university, and about how pupils and students experience it (Boylan et al., 2021; Ehrlander & Boylan, 2018; Speca, 2016; Speca, 2019). Brief published descriptions of some past MACs are also available (Kuusama, 2019; Shubin & Rogachev, 2017). Readers interested in such details should consult these works, a summary of which would divert us from our more general purpose of discussing the contribution MACs can make to teaching and learning about sustainable development.

It is worth pointing out here, however, that MACs are *model* Arctic Councils, not *youth* Arctic Councils. The pupils and students participating in MAC are not necessarily Arctic residents, nor Arctic Indigenous peoples. Indeed, though complete data is lacking, it is probably fair to say that most MAC participants to date have been non-Arctic pupils and students motivated to learn about this increasingly salient and important region, as well as about Arctic peoples and the challenges they face.

In what follows, I shall focus on five aspects of MAC that make it particularly well suited to teaching pupils and students about Arctic sustainable development – whether they are from the Arctic or not – and to inspiring them to act on it. I shall rely implicitly on the works cited above, as well as on my own personal experience designing and running over two dozen 'Polar Aspect MACs' for universities and secondary schools in Canada,

Spain the UK and online, which have involved hundreds of pupils and students from over 30 countries, including a small minority of present or former Arctic residents.

First, MACs naturally revolve around sustainable development issues. Many of the most urgent problems confronting the Arctic – exceedingly rapid climate change, uncommonly high concentrations of pollutants, fragile ecosystems, poor community infrastructure, limited access to public goods, narrowly based local economies, dependence on natural resource extraction, vulnerable Indigenous cultures, and so on – are problems of sustainable development. The Arctic Council concentrates exclusively on such problems, and on related problems of environmental protection, with questions of military security prohibited from discussion (Arctic Council, 1996). Indeed, questions of environment and development arguably dominate Arctic policy and governance as a whole (Exner-Pirot & Heininen, 2018; Heininen et al., 2020).

Second, MAC procedures require participants to grapple with the challenge of building consensus around contentious issues, since real Arctic Council procedures require members to take all decisions unanimously (Arctic Council, 1996). We have already noted that the idea of sustainable development is unclear and even self-contradictory, perhaps especially in the Arctic (Kristoffersen & Langhelle, 2017), and that part of education's role must be to make some sense of its meaning. The MAC rule of consensus positively demands that participants try to clarify and agree some of the difficult trade-offs inherent in Arctic sustainable development, or at least to consciously preserve enough diplomatic ambiguity around them to make progress in the simulation. The option to resort to a majority vote, in order to overrule dissenting parties, is simply unavailable in MAC.

Third, MACs expose participants to a variety of views on Arctic sustainable development, since the Arctic Council includes six Arctic Indigenous peoples' organizations with full rights to contribute to the Arctic Council's diplomatic and technical work (Arctic Council, 1996). We have already noted that the definition of sustainable development, and the resolution of its strong internal tensions, depends on one's perspectives and priorities. In the Arctic, Indigenous identities are founded in traditional uses of the environment (Schweizer et al., 2014). Formerly colonized peoples value preserving those identities and regaining control of their destinies alongside improving their material welfare (Young & Einarsson, 2004b). The idea of Arctic sustainable development, with its potential multiplicities of meaning, can therefore only be properly understood through cultural and Indigenous lenses (Degai & Petrov, 2021; Søndergaard, 2018). By allowing some participants to play the roles of Indigenous leaders, and by requiring others to treat Indigenous rights and perspectives seriously according to Arctic Council norms, MAC foregrounds the crucial cultural dimension of Arctic sustainable development.

Fourth, experience with MACs shows that, like MUNs, they have the capacity to inspire participants towards increased civic awareness and engagement (Boylan et al., 2021). In the Arctic context, the practical significance of this capacity to inspire is magnified. Though the Arctic is vast, it is only lightly populated, with about four to ten million people scattered across 40–60 million square kilometers, depending on geographical definition (Heleniak, 2020; Young & Einarsson, 2004a). Many Arctic communities themselves are very small, and opportunities for individuals to influence their development correspondingly large, especially since Arctic governance structures tend to be comparatively young, innovative, and inclusive (Heininen et al., 2015). It is therefore possible to envision MAC educating the next generation of Arctic leaders (Ehrlander & Boylan, 2018), or even MAC as a form of real policy analysis or diplomacy (Andonova & Mendoza-Castro, 2008; Sarson et al., 2019).

If MUN Impact can plausibly link MUN to direct action to advance global sustainable development, then MAC is at least as well placed to do the same for Arctic sustainable development.

Finally, pedagogical studies of MAC show that it offers similar educational benefits to those of MUN and other diplomatic simulations (Boylan et al., 2021; Ehrlander & Boylan, 2018; Speca, 2019). It enhances knowledge of the Arctic, its peoples and its challenges; improves understanding of the Arctic Council and Arctic governance; inspires further learning about the region; encourages participants to co-create new knowledge with each other and with their educators; and strengthens skills of public speaking, negotiating, consensus building and leadership. Not least, MAC paints a more careful and nuanced picture of the Arctic for participants whose previous exposure to the region may be slight, and whose ideas of it are shaped by the dubious popular view we encountered at the beginning of this paper, according to which 'Arctic sustainable development' is an oxymoron.

Effective educational use of Model Arctic Council

Educators currently using MAC have expressed a desire to see more of it, especially involving Arctic and Indigenous youth at Arctic schools and universities. By highlighting the international Arctic, MAC complements other simulations focused on the national or regional Arctic, such as model Indigenous treaty negotiation (Campbell, 2019), Nunavut Youth Parliament (LAN, n.d.), or the Northern Youth Forum (NYF, n.d.), as well as experiential learning initiatives focused on Arctic local culture and the land, such as Uummannaq Polar Institute (UPI, n.d.). It also offers the Arctic Council itself, which can seem distant from Arctic communities (Gordon Foundation, 2015), a chance to connect locally.

Educators who wish to use MAC to its full advantage, however, should beware of two major pedagogical pitfalls. These pitfalls are not confined to MAC. They may emerge in the context of any sort of diplomatic simulation, and they have been noted especially with respect to MUN. They are also avoidable with care and planning.

Maximizing learning from Model Arctic Council

Educators using MUN in particular have observed that participants may not be fully prepared to learn all they can from their MUN experiences (Haack, 2008; Hazelton & Mahurin, 1986). Participants may lack the background knowledge and research skills to prepare properly for the simulation, or the self-confidence or communication skills to translate preparation into effective participation. They may also have naively expected the simulation to be easy or intuitive. The simulation itself may be at fault, too, if it is not embedded in an overarching scheme of learning, if it is not purposefully designed to achieve certain learning objectives, or if it does not offer participants any opportunity to reflect on their experiences. Like MUN, MAC is also naturally prone to these problems.

Fortunately, these problems are soluble, for MAC as well as for MUN. Educators should guide participants through preparatory research efforts, scaffolding preparation within a broader learning structure (Haack, 2008; Levy, 2016). They should design diplomatic simulations around predetermined learning objectives, rather than assume learning will emerge spontaneously from the experience of simulation itself (Asal & Blake, 2006; Taylor, 2013). They should make space and time for critical debriefing sessions at which participants can

reflect on their experience and distill new knowledge from it, ideally in discussion with educators and experts (Fritzsche et al., 2004; Petranek, 2000; Steinwachs, 1992).

To help participants ready themselves to learn, those of us who have run MACs have found a number of techniques useful, such as assigning advance reading, providing detailed issue briefs, compiling an online research library, requiring participant discussion papers, and organizing teaching days and field-trips as integral parts of the conference. We have also purposefully designed MACs to facilitate predetermined learning objectives – for instance to mobilize civic engagement (Boylan et al., 2021) or to impress upon youth the idea of the Arctic as a homeland and a place of cooperative dialogue (Speca, 2019). MAC participants from outside the Arctic may especially lack knowledge of the region, and all participants no matter their origins can benefit from in-depth preparation.

Another educationally fruitful technique is to build subtle teaching opportunities into the MAC itself, such as scheduled policy briefings at which the educator plays the role of a civil servant giving advice to politicians, or meetings that the educator chairs as a neutral secretary (Speca, 2019). I have even sometimes allowed myself to suspend proceedings to make a critical teaching point, but I try to do so only in response to clear frustration from participants about their lack of understanding or their inability to make progress. Feedback from MAC participants suggests that they value this sort of teaching, so long as educators are careful not to upset the natural flow of experiential learning (Boylan et al., 2021).

Distilling new knowledge from direct experience requires conscious reflection, and MAC proponents have also encouraged participants to debrief both during and after the simulation. Time for debriefing may be limited, especially if participants return directly their own schools or universities after the event. But in my own experience, as well as that of other MAC proponents (Boylan et al., 2021), having experts or inspirational figures on-hand to counsel participants about important points of content and conduct has proven extremely effective, and much appreciated by participants.

In short, educators using MAC should support participants to complete the full cycle of experiential learning, from experience through to new knowledge, and ideally to the application of that new knowledge to further experience. Seeing this cycle through demands intent from the participant to learn, as well as care from the educator not to over-engineer a learning process that is naturally less mediated (Moon, 2004). But it holds out the prospect of maximizing learning from MAC and other diplomatic simulations, including higher forms of analytical and evaluative deep learning (Engel et al., 2017; Haack, 2008).

Ensuring appropriate attitudes towards Model Arctic Council

Educators using MUN in particular have also observed that the simulation's gaming and socializing aspects can sometimes eclipse its learning aspect (Muldoon, 1995). Veteran participants are tempted to rely on their command of MUN rules to influence proceedings in favor of their adoptive country's positions, and they can confuse this procedural mastery with an understanding of both diplomacy in general and UN practice in particular. What is more, it has become fashionable, perhaps especially in some American MUN circles, to treat MUN more as a competitive game, and a 'work-hard-play-hard' social event, than as an imaginative and collaborative problem-solving activity.

This competitive and social form of MUN has been served up as comic fodder on film (Shapiro, 2001), and profiled with concern in the American national press (Perrin, 2013).

The UN itself has noted critically that it deviates too far from real UN practice, which aims at consensus building (Nasser, 2013; UN, 2020). Nevertheless, some educators embrace it, arguing that educators should 'coach' participants to 'win' MUN as a 'competitive sport', because it motivates them to learn (Mickolus & Brannan, 2013, p. 2). On this view, however, what delegates are supposed to learn is less the substantive content of global issues, over which they have 'limited influence'; or the value of compromise and consensus, which the logic of competition may overrule; and more a set of 'life lessons' about self-confidence, leadership, and the practical benefit of interpersonal and administrative skills (Mickolus & Brannan, 2013, pp. 2–4).

My own experience guiding a secondary-school model diplomacy club has convinced me to reject this approach. Treating MUN as a competitive sport undermines its full educational value, which ranges far beyond such life lessons, however useful they may be. Overt emphasis on competing and socializing may also reinforce gender stereotypes that exclude or alienate female delegates more than males (Coughlin, 2013).

Admittedly, MUN can come across as overly idealistic and unrealistic, particularly when MUN proponents repeat platitudes about neighborly international collaboration and world peace (Mickolus & Brannan, 2013). MUN can even serve as a welcome antidote to the unreflective and youthful assumption that straightforward solutions exist to complex global problems (Coticchia et al., 2020; Youde, 2008). But it is hard to see how MUN could inspire youth to learn about those problems, and to feel politically empowered and engaged enough to act on them, if it flirts with the cynicism of diplomacy as a game with winners and losers.

It is not yet in vogue to play MAC as a competitive game, as it is in some MUN circles. Nonetheless, those of us who have run MACs have found that participants can sometimes adopt language and attitudes that impede cooperation (Ehrlander & Boylan, 2018). It is perhaps easy to become emotionally attached to one's position during an intense diplomatic simulation, and school-age participants in particular may play their roles all the more zealously if they have taken them seriously at all. I have also personally noticed that MAC participants with extensive experience of MUN are more likely to approach MAC as a contest.

However that may be, adversarial diplomacy is foreign to real Arctic Council practice, and exceptions are rare and remarkable (Koivurova, 2019). Not only does the Arctic Council operate by a rule of consensus, it also lacks its own legal personality (Nord, 2016). It can only shape policy, not make or enforce it (Brigham et al., 2016).

In addition, the questions of Arctic sustainable development that dominate the Arctic Council's agenda ostensibly call for cooperation on hard decisions (Trump et al., 2018), not competition for prizes. Arctic Council norms also require Arctic States to extend their cooperation to extend to Arctic Indigenous peoples (Arctic Council, 1996). But cross-cultural consensus building can be challenging enough for seasoned diplomats, and MACs can sometimes become bogged down over disputes between a small handful of determined participants.

The problem of competition in MAC is fortunately avoidable. It once again requires educators to support delegates through the experiential learning process. They should guide delegates to undertake substantive preparatory research, design simulations to reward collaborative problem solving, and create opportunities for meaningful reflection not only on the content of the simulation, but also on the attitudes and conduct of those involved in it.

Educators using MAC should therefore make a special effort to underscore the rule of consensus, the importance of Indigenous perspectives, and the value of adopting a

collaborative, problem-solving attitude when faced with contentious issues on which disagreement is inevitable. Considering the formidable moral and political trade-offs involved in Arctic sustainable development, these lessons are perhaps among the most important that MAC can teach. As one teacher put it to me about his pupils' experience of MAC, 'It is the need for consensus (not just a majority) which makes it truly special' (J. Kempton, personal communication, March 4, 2019).

The future of Model Arctic Council

Over its quarter-century of existence, the Arctic Council has become central to Arctic international relations (English, 2013; Nord, 2016). This is not to say that the Arctic Council encompasses all aspects of international Arctic governance, which also involves many other Arctic and non-Arctic actors in a complex regime operating on multiple levels (Nilsson & Koivurova, 2016; Østhagen, 2020; Young, 2016). Nor is it to say that the Arctic Council is institutionally perfect. It reflects a geography of Arctic power and voice focused on states rather than communities (Holm Olsen, 2020; Holm Olsen & Shadian, 2016; Østreng, 2017), as well as a policy narrative of peaceful Arctic exceptionalism that may now be waning or obsolescent (Lackenbauer & Dean, 2020; Young, 2020). The Arctic Council has also attracted debate about its purpose, structure and effectiveness (e.g. recently from Exner-Pirot et al., 2019; Koivurova, 2019; Smieszek, 2019; Smieszek & Koivurova, 2017; Wiseman, 2021; Young, 2019).

But the Arctic Council's central place in Arctic international relations makes it a worthy subject for diplomatic simulation, even with its potential troubles and flaws. For instance, while it may be regrettable that American objections to international climate-change policy and the SDGs have recently become pivotal to the success of Arctic Council meetings (Koivurova, 2019), it is nonetheless ideal for educators using MAC to initiate pupils or students into the challenges of Arctic diplomacy and Arctic sustainable development. Similarly, if for instance the Arctic Council tends to prioritize environmental protection over sustainable development, or the perspectives of national governments over Arctic regional governments or local communities (Exner-Pirot et al., 2019), such problems can serve as opportunities to teach youth about Arctic peoples, and to inspire them to prioritize Arctic sustainable development themselves.

All the same, the Arctic Council now faces an uncertain future. While this paper was undergoing review, all the Arctic States apart from Russia – which currently holds the rotating Arctic Council Chair – announced that they would be 'temporarily pausing participation' in the Arctic Council in response to Russia's invasion of Ukraine (Global Affairs Canada, 2022). Despite the ostensibly temporary nature of the 'pause', as well as the commitment of Arctic States to the Arctic Council's 'enduring value', it is unclear when or even if the Arctic Council will resume work, if its structure and purpose will change, or if its significance will diminish as questions of Arctic military security come to overshadow those of Arctic environmental protection and sustainable development (Edvardsen, 2022; Kirchner, 2022; Koivurova, 2022; Rogoff, 2022).

Yet even in this moment, MAC remains a powerful educational tool. Pupils, students and educators who are inspired by the Arctic, the Arctic Council and Arctic sustainable development can and should continue to use MAC, in full awareness of the tragic backdrop against which their educational experience now unfolds. Indeed, MAC can serve as a mechanism for exploring the implications of today's shifting Arctic geopolitics, not only for

Arctic states, but also for Arctic or Arctic-focused Indigenous peoples, communities, scientists and businesses, especially those whose homelands or activities include the Russian Arctic. In my own recent MACs, for example, the future of Arctic cooperation has been one of the topics assigned to delegates to discuss and negotiate during the simulation.

Moreover, as I have suggested elsewhere (Polar Aspect, 2022), pupils and students participating in MAC can do so according to rules of procedure that permit them to meet under a neutral, third-party chair, and to continue to cooperate in good faith on questions of environment and development irrespective of the Arctic states or Indigenous peoples they fictively represent. Indeed, in the present context of war, MAC takes on special salience as a channel through which youth can demonstrate their personal commitment to dialogue, and their capacity for collaboration and consensus.

It is in this spirit that I have suggested MAC as a means of teaching, learning and promoting sustainable development in the Arctic. By offering pupils and students the imagined experience of tackling problems of sustainable development at the highest political levels, MAC harnesses the youthful urge to try on the mantles of their elders, and to make a difference in the world. It has the potential to inspire youth to take real action to promote sustainable development in their own communities, as the example of MUN Impact strongly suggests. And with careful attention to the pitfalls and recommendations I have discussed above, educators using MAC can also provide their pupils and students with the valuable educational benefits common to all types of diplomatic simulation – enhanced learning, critical thinking, moral reasoning, appreciation of opposing perspectives, improved communication skills, and so on.

Perhaps most importantly, MAC can help Arctic educators, pupils and students to meet the double challenge that I outlined at the beginning of this paper – to make some sense of the inconsistent and contested notion of sustainable development, and to apply it in a way meaningful to the Arctic. Through MAC, youth try to define Arctic sustainable development for themselves, and to wrestle with the hard moral and political choices that follow. If education is to be a means for Arctic sustainable development, it seems fitting to begin this way. After all, it will be today's youth who will live with the consequences of those choices that are now being made.

Note

1. The discussion of MUN Impact in this section draws upon personal communication with MUN Impact Executive Director Lisa Martin, and MUN Impact directors Nicola Dignum and Andrew Newman. For ease of presentation, however, I have only referenced directly quoted or paraphrased citations. Lisa Martin confirmed all information about MUN Impact in this discussion on January 11, 2022.

Disclosure statement

The author designs and runs Model Arctic Council diplomatic simulations for schools and universities as an educational business venture.

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