

Does Civic Education Improve Ethnic Tolerance?

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Abstract

While current research shows that civic education improves multiple political outcomes, its impact on ethnic tolerance remains uncertain. Civic education may foster outgroup tolerance by teaching respect for diversity and promoting a shared national identity, but it may be counterproductive if it emphasizes ethnic nationalism. I investigate this question by analyzing (1) a reform in Singapore that quasi-randomly assigned students to a new civic education course and (2) the International Civic and Citizenship Education Study (ICCS) data. Both studies reveal no improvement in ethnic tolerance from civic education. One potential explanation is that the effectiveness of civic education depends on classroom openness. A reexamination of the Singapore case and ICCS data supports this conjecture: civic education improves ethnic tolerance in open classroom settings, while its effects are negligible in restrictive environments. These results underscore the pivotal role of pedagogy in amplifying the positive impact of civic education on ethnic tolerance.

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Political scientists and education researchers alike have devoted considerable attention to understanding the behavioral and attitudinal effects of civic education (Galston, 2001; Torney-Purta et al., 2001). A recurring finding within this body of research is that civic education strengthens political participation, efficacy, and knowledge among both youths and adults in established (Campbell and Niemi, 2016; Niemi and Junn, 1998) and nascent democracies (Finkel, Neundorf and Rascón Ramírez, 2024; Gottlieb, 2016; Sperber, McClendon and Kaaba, 2024). Civics classes have also been shown to compensate for the absence of parental political socialization by reducing the political participation gap between the haves and have-nots. These compensatory effects are most pronounced among racial minorities and other marginalized groups (Finkel, 2003; Nelsen, 2023*a*; Neundorf, Niemi and Smets, 2016).

Despite extensive research on its political effects, there is no theoretical consensus on whether civic education should also improve ethnic tolerance. On the one hand, it seems reasonable to expect that the same features of civic education that positively influence political outcomes – such as teaching respect for diversity or promoting a shared national identity that transcends ethnic parochialism – could improve how students perceive and treat ethnic outgroup members (e.g., Cantoni et al., 2017; Finkel, Horowitz and Rojo-Mendoza, 2012; Lerch, Russell and Ramirez, 2017). On the other hand, the connection between civic education and ethnic tolerance may not be as straightforward as initially conceived. This is because some civics textbooks promote a narrower, more exclusionary form of national identity based on ethnic heritage or other ascriptive group affiliations (e.g., Çayır, 2015; Durrani and Dunne, 2010; Gaul, 2014). Such content may reinforce divisive notions of national belonging, potentially undermining social cohesion and intergroup tolerance. This theoretical ambiguity is also reflected in current empirical research (e.g., Finkel, Horowitz and Rojo-Mendoza, 2012; Langton and Jennings, 1968; Lee, 2023), thus raising an important question: Does civic education improve ethnic tolerance?

Empirically, I address this question through two studies. Study 1 examines an education reform in Singapore, where students were quasi-randomly assigned to a new compulsory

civic education course based on their birth years. This course sought to foster interracial respect and advocated an inclusive, non-ethnic vision of the country's national identity (Ho, 2009; Sim, 2011). To investigate the reform's impact, I conducted an original survey of 2,000 respondents in Singapore to examine the relationship between civic education exposure and ethnic tolerance. Study 2 broadens the scope by analyzing data from the 2016 International Civic and Citizenship Education Study (ICCS, Schulz et al., 2018), covering 90,000 eighth-graders across 24 countries. This diverse sample provides a comprehensive examination of civic education's impact on ethnic tolerance across different political and cultural contexts.

Across both studies, the findings reveal a consistent picture: civic education exposure was not linked to any significant increases in tolerance towards ethnic outgroups. These null results are noteworthy for several reasons. First, despite a curricular emphasis on intergroup harmony and ethnic inclusivity vis-à-vis the country's national identity, the new civic education course in Singapore did not improve ethnic tolerance as initially expected. Second, this lack of effect was consistent across both democratic and authoritarian contexts in the ICCS data. Third, these null findings held for both adults who had left school more than a decade ago (Study 1) and eighth-grade students (Study 2).

One potential explanation for the null findings is that the effectiveness of civic education in promoting ethnic tolerance may depend on factors beyond the content itself, such as pedagogy (Martens and Gainous, 2013; Nelsen, 2023*b*) and classroom diversity (Janmaat, 2012; Ostwald, Ong and Gueorguiev, 2019). This article focuses on the moderating role of open classrooms, which prior research has identified as one of the most effective approaches in improving students' political efficacy and knowledge (Campbell, 2008; McAvoy and Hess, 2013; Persson, 2015). There are two reasons to expect that the positive connection between civic education and ethnic tolerance will be most pronounced in open classroom settings. First, open classrooms allow students to discuss contemporary issues beyond the content taught in standard civics textbooks, such as systemic racism. Second, they facilitate the sharing of diverse opinions and experiences, thereby helping students gain insights into other

viewpoints not covered in traditional civics curricula.

I revisit the two studies by focusing on the moderating impact of open classrooms. In the Singapore case, anecdotal accounts from qualitative research suggest that the teaching of the new civic education course was fairly restrictive in terms of classroom discussions (Ho, 2010; Sim, 2011), which may help explain the null findings observed in the first study. More definitively, a reanalysis of the ICCS data reveals a positive connection between civic education and ethnic tolerance in classrooms with high levels of open discussions. Conversely, civic education had a negligible effect on ethnic tolerance in classrooms where student-led discussions and open-ended exploration were not prioritized. Taken together, these findings indicate that civic education content alone does not improve ethnic tolerance. Instead, they highlight the crucial role of open classroom environments in amplifying the positive effect of civic education on ethnic tolerance. Put simply, the pedagogical underpinnings of civic education may be more influential than the content itself.

This article makes three important theoretical and policy contributions. First, it advances our understanding of the social and political effects of civic education by identifying a key condition under which these programs are effective in mitigating outgroup animus and discrimination. Specifically, the findings emphasize the centrality of open instructional methods in civic education – as opposed to traditional top-down instruction – for promoting intergroup acceptance. As such, the findings speak to the broader literature on how non-content factors in the classroom can foster meaningful changes in students’ political attitudes and behaviors (e.g., Claassen and Monson, 2015; Martens and Gainous, 2013; Miklikowska, Rekker and Kudrnac, 2022). Second, the results underscore the importance of early-life interventions, especially open classroom discussions, in reducing intergroup prejudice (e.g., Weiss, Ran and Halperin, 2023). Lastly, the findings offer practical insights for education practitioners and policymakers working in ethnically divided societies. While many civic education programs are designed with the best intentions to counteract ethnic biases from a young age, this research shows that their effectiveness is often linked to the extent to which

an open classroom climate is integrated into the learning environment.

Civic Education & Ethnic Tolerance: Theory & Empirical Record

Existing research offers two competing theoretical perspectives on the relationship between civic education and ethnic tolerance. In the following paragraphs, I present both sides of the debate, outlining the arguments and evidence in support of each perspective.

Why Civic Education Should Improve Ethnic Tolerance

The core purpose of many civic education programs is to provide students with the foundational knowledge and skills essential for being a ‘good’ citizen in their respective countries (Cogan, Morris and Print, 2002). While the specifics of what qualifies as a ‘good’ citizen differ across countries, several common themes can be found in civic education curricula globally. These include imparting knowledge about political institutions and processes, and inculcating core civic values like fairness and altruism (Schulz et al., 2018).

Among these themes, human rights education stand out as particularly relevant for promoting ethnic tolerance. Indeed, many countries have made human rights a key cornerstone of their civics curricula in recent decades. An analysis of 465 social science textbooks from 69 countries found a significant increase in human rights themes since 1970 (Meyer, Bromley and Ramirez, 2010). This global trend encompasses broader discussions of human rights, such as the rights of marginalized groups and citizenship rights for immigrants (Russell and Tiplic, 2014). It is worth stressing that human rights content in civic education is often framed within the broader context of multiculturalism, which emphasizes the value of respecting diverse cultural perspectives in an inclusive setting (Banks, 2007). For instance, a ninth-grade textbook in Costa Rica describes human rights as ‘universal because they belong to all people, without distinguishing between ethnicity, color, sex, language, religion, ..., or any other condition’ (cited in Suárez, 2008, 492). In British Columbia, Bromley (2011) notes

that the principles of human rights and multiculturalism have become deeply intertwined with the meaning of Canadian national identity in their social science textbooks.

On the empirical front, the evidence suggests that the inclusion of human rights themes can promote more tolerant outlooks. An example comes from Kenya's nationwide civic education initiative in the mid-2000s. While the program covered various themes, its emphasis on human rights, democracy, and nation-building was especially relevant for mitigating post-election ethnic tensions. Finkel, Horowitz and Rojo-Mendoza (2012) evaluated this program and found significant improvements in intergroup relations. For instance, participants in the program displayed greater tolerance toward other ethnic groups and increased willingness to forgive those involved in past violence.

Another common objective of civic education is to foster feelings of patriotism and a shared national identity among students. If the primary goal of a country's education system is to cultivate citizens' attachment and loyalty to the nation-state (e.g., Alesina, Giuliano and Reich, 2021; Paglayan, 2022), then civic education can be regarded as the main instrument for achieving this goal. A study analyzing 576 secondary school social science textbooks from 78 countries published between 1955 and 2011 reported the persistence of nation-building narratives in textbooks throughout the study period (Lerch, Russell and Ramirez, 2017). This underscores the enduring strength of nation-building themes in civic education curricula, despite the declining relevance of the nation-state in a highly globalized world.

More pertinently, these nation-building themes often convey the idea that a citizen's national identity should be prioritized over other sectarian identities like ethnicity or religion. For example, the new civics textbooks in China stressed the importance of preserving national unity and urged students to actively contribute to 'multi-ethnic harmony' (cited in Cantoni et al., 2017, 349). Likewise, following the genocide in Rwanda, the National Unity and Reconciliation Commission implemented various public programs, including civic education initiatives, to cultivate an all-inclusive Rwandan identity not based on ethnicity (Buckley-Zistel, 2006). Theoretically, the construction of a common national identity

through civic education could be viewed through the lens of the common ingroup identity model (Gaertner et al., 1993), where an individual's superordinate national identity supercedes other subordinate identities like ethnicity (e.g., Charnysh, Lucas and Singh, 2015; Curtis, 2024). Through the process of recategorization, students may come to view other ethnic groups not as outgroups, but as part of a common national ingroup, thus improving interethnic trust and tolerance. In other words, by nurturing a shared national identity, civic education may facilitate this recategorization process by diminishing the salience of ethnic divisions in favor of one's national identity, thereby improving intergroup attitudes.

Why Civic Education Should Not Improve Ethnic Tolerance

Despite the above theoretical intuitions, the empirical track record of civic education in improving ethnic tolerance remains mixed and inconclusive. Within the limited body of research examining this relationship, some studies report a positive connection between civic education exposure and ethnic tolerance (Finkel, 2003; Finkel and Smith, 2011; Finkel, Horowitz and Rojo-Mendoza, 2012), while others find no significant effects (Cantoni et al., 2017; Langton and Jennings, 1968), or even a negative impact (Lee, 2023). This inconsistency may be partly attributed to the substantial variation in civic education content worldwide, particularly in how ethnic issues are addressed within each country.

One possible explanation for the ineffectiveness of civic education in uplifting ethnic tolerance lies in its limited engagement with ethnic issues, despite the inclusion of broader human rights and nation-building themes in the textbooks. In the US, Nelson and Pang (2014, 208) opine that 'the social studies curriculum often does a poor job of examining ... the pervasiveness of racialization in everyday life.' Consequently, many Americans struggle to associate their civic education experiences with ethnic-related matters like systemic racism in the workplace and political settings (Levine and Lopez, 2004). This pattern extends beyond the US, with several scholarly evaluations noting a deliberate avoidance of ethnicity-related discussions in civics classes across multiple countries (Astiz and Mendez, 2006; Fox, 2003;

Freedman et al., 2008). Similarly, Cantoni et al. (2017) found no evidence that a new civic education curriculum in China improved attitudes towards ethnic minorities. Although there was an increased frequency of identity-related terms in the new textbooks, this coverage still paled in comparison to other topics like governance and political institutions. Above all, there was a noticeable omission of human rights-related terms in the new materials, which may help explain the null findings reported in their paper.

A second, and more pernicious, reason why civic education may fail to improve ethnic tolerance is that some civics textbooks promote a narrower, more exclusive form of national identity based on ethnic heritage or other ascriptive group affiliations – i.e., ethnic nationalism. This pattern has been observed in many countries, including Myanmar (Salem-Gervais and Metro, 2012), Turkey (Çayır, 2015), Sri Lanka (Gaul, 2014), and Pakistan (Durrani and Dunne, 2010). In these instances, civic education may promote exclusionary ideas about national identity, creating barriers between different groups and weakening the bonds that hold diverse societies together. This phenomenon is well-documented in Lee’s (2023) research on Taiwan’s revised civic education curriculum and its effect on students’ attitudes towards immigrants. Students who engaged with the new civic education materials developed stronger anti-immigrant sentiments. This attitudinal shift was linked to the curriculum’s heightened focus on a distinct Taiwanese identity, which was defined narrowly in terms of the country’s four primary ethnic groups. This case demonstrates how civic education, even when intended to strengthen national identity, can inadvertently foster exclusionary views and hinder the development of a more tolerant society.

Civic Education & Ethnic Tolerance: Diverse Content, Diverse Effects

Taken together, the preceding discussion reveals that both the theoretical expectations and empirical conclusions about the impact of civic education on ethnic tolerance remain unclear. While the inclusion of human rights and nation-building themes in civic education could plausibly contribute to greater ethnic tolerance among students, this view ignores important

contextual factors. This is because there are substantial differences in how each country addresses ethnic issues in their civics curriculum, both in terms of coverage (i.e., how much) and inclusivity (i.e., how broad in relation to national identity). Importantly, the diversity of civic education content suggests that case selection may explain why the current literature is fraught with mixed conclusions. For instance, studies finding null or negative effects may reflect contexts where civic education offers limited coverage of ethnic issues or promotes exclusionary nationalism – i.e., cases where civic education should not have a positive impact on ethnic tolerance (Cantoni et al., 2017; Lee, 2023). Due to these contextual differences, it is challenging to draw broad conclusions about the relationship between civic education exposure and ethnic tolerance.

In spite of these challenges, a more promising approach would be to examine whether civic education can improve ethnic tolerance when its content devotes greater attention to addressing ethnic issues in an inclusive manner. Rather than asking whether civic education works in general (which, as mentioned previously, is an impossible task), I focus on identifying the conditions and cases under which it might be most effective in improving ethnic tolerance – specifically, when its curriculum eschews ethnic nationalism in favor of fostering an inclusive national identity. Put simply, can civic education improve ethnic tolerance when it focuses on topics related to interethnic relations and advocates for a more inclusive understanding of a country’s national identity? Based on these considerations, the next section will describe why Singapore and the International Civic and Citizenship Education Study (ICCS) were selected as empirical cases to answer this question.

Research Design

I conduct two separate studies to investigate whether civic education improves ethnic tolerance. Study 1 analyzes an education reform in Singapore, where students born after a specific cutoff date were exposed to a new civic education course, while those born before the cutoff did not. Singapore provides an ideal setting for studying the relationship between

civic education and intergroup attitudes for several theoretical and empirical reasons.

From a theoretical perspective, Singapore represents a unique case where the new curriculum explicitly emphasized preserving interracial harmony in a diverse society while promoting an inclusive national identity (Ho, 2009; Sim, 2011). This distinctive focus offers a compelling opportunity to uncover a positive connection between civic education and ethnic tolerance. Empirically, Singapore's educational landscape offers several advantages. First, the country's highly centralized education system (Tan and Chew, 2008) ensures that the new civics curriculum and instructional methods were standardized across all public schools. Together with the fact that an overwhelming majority of Singaporean children attend public schools,¹ this uniformity ensures that students affected by the reform likely had similar experiences with the new subject. Moreover, the new civic education course, known locally as 'Social Studies,' is a compulsory two-year program at the upper secondary level (grades 9–10). This mitigates the possibility that any observed null effects between civic education and ethnic tolerance could be explained by a lack of exposure to the new subject. Finally, Social Studies is a testable subject at the national admission examination for pre-tertiary institutions in Singapore. This high-stakes testing context should strengthen our ability to detect positive effects, as prior research has shown that such examinations can amplify civic education's influence on political efficacy and knowledge (Campbell and Niemi, 2016).

Study 2 analyzes cross-national data from ICCS 2016 (Schulz et al., 2018). The ICCS collected data from 90,000 eighth-grade students across 24 democratic and non-democratic countries in Europe, Asia, and the Americas.² This dataset includes responses from students and school administrators regarding their attitudes, perceptions, and activities related to civic education. This diverse sample not only lends external validity to the findings, but

¹Under the Compulsory Education Act 2000, all Singaporean children of compulsory school age must attend national primary schools. While exemptions are possible for attendance at non-national primary schools (such as madrasahs or private institutions) or homeschooling, parents must obtain prior approval from the education ministry, and such exemptions are rarely granted.

²The 24 countries that participated in ICCS 2016 were Belgium, Bulgaria, Chile, Colombia, Denmark, Germany, Dominican Republic, Estonia, Finland, Hong Kong, Croatia, Italy, South Korea, Lithuania, Latvia, Mexico, Malta, Netherlands, Norway, Peru, Russia, Slovenia, Sweden, and Taiwan.

also facilitates a more extensive investigation of how civic education affects ethnic tolerance across different political contexts. For instance, democratic regimes typically place stronger emphasis on teaching human rights principles than authoritarian states (Li, 2021). Thus, the relationship between civic education and ethnic tolerance might be observed primarily among students in democratic regimes rather than authoritarian countries.

Study 1: Civic Education Reform in Singapore

Singapore is a multi-ethnic country comprising three main ethnic groups: Chinese (75.9%), Malays (15%), and Indians (7.5%). Since its independence from Malaysia in 1965, the government has implemented various civic education programs to foster intergroup tolerance in a society marked by ethnic, religious, and linguistic diversity. Early attempts at fostering a shared national identity were unstructured and rudimentary, consisting only of one weekly lesson in secular ethics or civics at both primary and secondary levels (Chew, 1998).

Subsequent reforms in the late 1970s sought to organize civic education more systematically, with the curriculum aimed at countering perceived Western individualistic and ‘decadent’ values. This new approach delivered civic education through two main channels: (1) instruction in students’ mother tongues to better transmit Asian cultural values and preserve cultural identities, and (2) religious-based teaching, the latter of which was based on the belief that religious instruction would be more effective than secular training in cultivating moral virtues (Tan, 1994). However, these programs were discontinued in 1990, possibly due to their impact on religious sensitivities and the tendency for religious teachers to proselytize within schools. More significantly, these early civic education initiatives failed to achieve their broader goal of nation-building, as many youths continued to show limited knowledge of and interest in Singapore’s history and political development (Sim, 2005).

In response, the Ministry of Education introduced Social Studies as a compulsory subject at the upper secondary level (grades 9–10) in 2001. This marked a significant departure from previous initiatives in two ways. First, Social Studies became a mandatory and testable

subject in the General Certificate of Education Ordinary Level (GCE O'Level) examination, which is a prerequisite for admission to pre-tertiary schools in Singapore. Second, the course content was delivered more uniformly across schools and students of different ethnic and religious backgrounds. This was exemplified by the use of English as the only language of instruction and the adoption of a secular teaching approach rather than religious instruction for Social Studies.

Since 2001, all grade 9 (15-year-old) students were required to study this new subject for a minimum of two years (Sim, 2005). Given that the academic year in Singapore follows the calendar year, students born on or after January 1, 1986, were required to study Social Studies when it was introduced in 2001, while those born before this date were not. This cutoff was likely sharp, as students had limited ability to manipulate their exposure to the new course. For instance, grade-skipping is rare in Singapore, with only seven children having done so since 2000 (Long, 2013).

Content Analysis of Social Studies Textbooks

One of the primary goals of Social Studies was to cultivate students into empathetic citizens who would participate responsibly in a diverse society and embrace a strong sense of 'shared destiny and national identity' (Ministry of Education, 2003, 4). A qualitative review of the textbooks indicates that interethnic relations and national identity were prominent themes in the early chapters (Curriculum Planning & Development Division [CPDD], 2001; 2002).³ One chapter provided a detailed account of how political parties in Malaysia sought to provoke communal violence between the Malay and Chinese communities in Singapore, as well as the importance of preserving racial harmony in light of these historical flare-ups. It stressed that the racial riots 'showed the danger of communal politics in a multi-racial Singapore,' and how these tensions 'resulted in a loss of lives, destruction of property and a

³While the textbooks have undergone multiple revisions since their introduction in 2001 (see Sim, 2011), this study focuses on the content of the first edition, which is consistent with the empirical approach of estimating the (local) average treatment effect around the initial cohorts of students impacted by the reform.

breakdown in peace and order' (CPDD, 2001, 38).

The next two chapters examined intergroup relations in Sri Lanka, Northern Ireland, and Switzerland. The first two countries served as cautionary tales of the dangers of ethnic and religious discord. For instance, the textbook described how several instances of institutional discrimination against the Tamil minority in Sri Lanka contributed to the emergence of the Liberation Tigers of Tamil Eelam (LTTE) and the country's prolonged armed struggle. In contrast, Switzerland was presented as a model of intergroup respect that can offer valuable lessons for managing racial and religious relations in Singapore:

Switzerland did not choose to build a nation based on one religion, one culture or one language alone. ... By allowing different language and religious groups to retain their culture, Switzerland has been successful in forging harmony and unity among them. In the same way, multi-cultural societies like Singapore will continue to enjoy internal peace and harmony so long as the cultures of the different races are respected and the people respect one another (CPDD, 2001, 95).

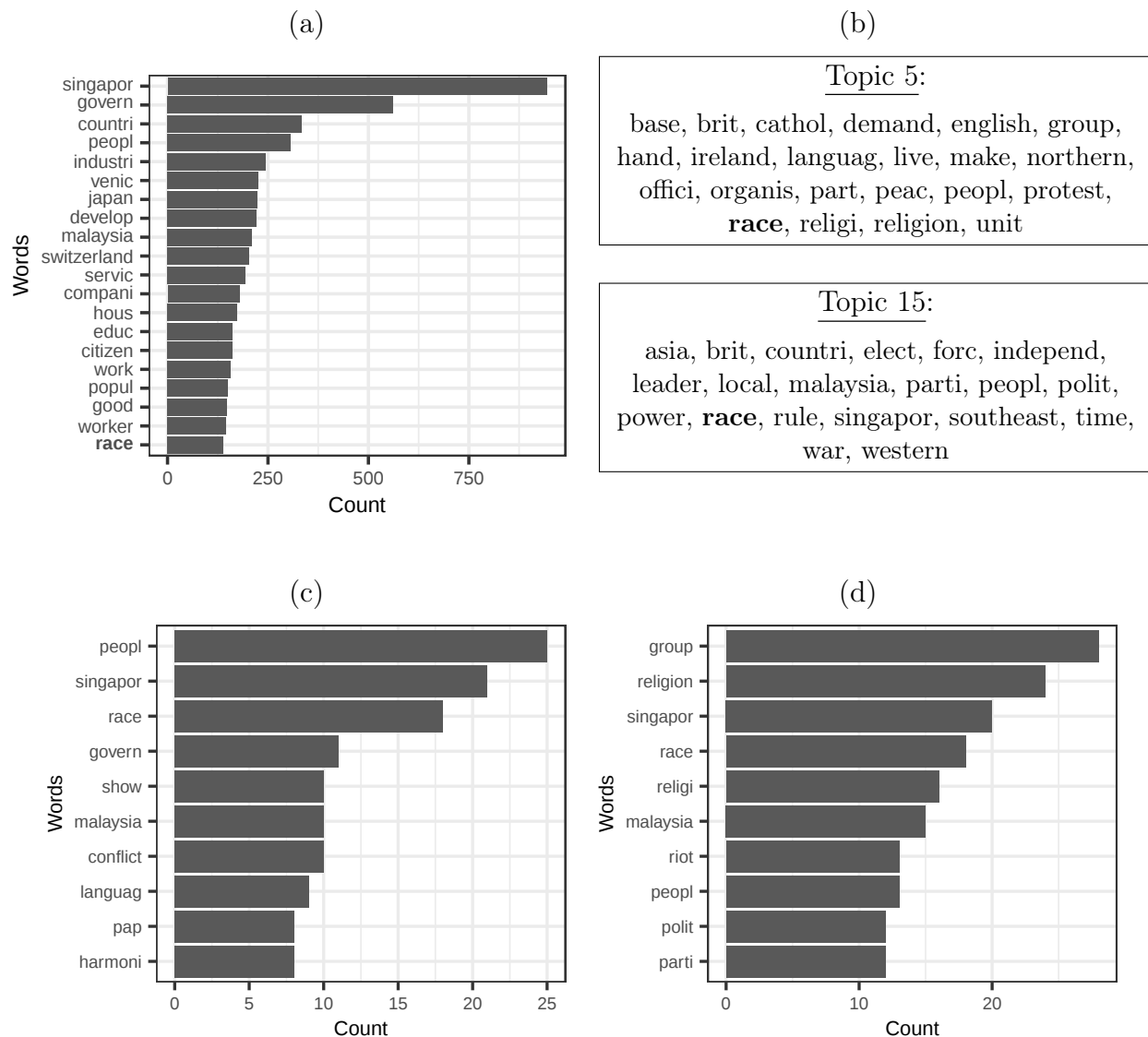
The quantitative text analysis in Figure 1 confirms the qualitative observation that race was a salient theme in the textbooks.⁴ The word 'race' appears among the 20 most commonly used words in the Social Studies textbooks (top left panel), alongside other terms typically associated with civics-related topics, such as 'government' and 'citizen.' To better understand the contexts in which the term 'race' was used, I employ a Latent Dirichlet Allocation (LDA) model, an unsupervised text analysis technique, to uncover the main topics from the textbooks (Blei, 2012). Here, I report findings from the 18-topic model, as it closely aligns with the number of chapters in the textbooks – i.e., 14.⁵

The 18-topic LDA model reveals that the term 'race' is most likely to occur in Topics 5

⁴I use standard text preprocessing conventions, such as stemming (i.e., reducing words to their base or root form). Section OA1a of the Online Appendix (OA) provides details regarding the preprocessing steps.

⁵Section OA1a details the methodology for selecting the optimal number of topics from the textbooks and presents results from multiple topic models.

Figure 1: Quantitative Text Analysis of Social Studies Textbooks



Notes: The figure presents four panels analyzing word patterns in the Social Studies textbooks: (a) the frequency of the 20 most common stemmed words (top left); (b) words that often appeared in topics where the word 'race' was prominent in the 18-topic model (top right); (c) words most frequently occurring within 5 words before 'race' (bottom left); and (d) words most frequently occurring within 5 words after 'race' (bottom right).

and 15. As shown in the top right panel of Figure 1, 'race' frequently co-occurs with social terms like 'live' and 'peace' in Topic 5, and political concepts such as 'parties' and 'power' in Topic 15. This suggests that the new textbooks often contextualized intergroup relations, both within Singapore and abroad, in terms of their social and political ramifications. An

analysis of the five words appearing immediately before and after the term ‘race’ (bottom left and right panels, respectively) reveals frequent usage of words like ‘harmonious’ and ‘riots,’ thus highlighting a narrative that emphasizes the importance of preserving intergroup harmony while warning of the dangers of racial discrimination and violence. Together, these qualitative and quantitative findings suggest that Singapore’s new civic education curriculum aimed to foster students’ understanding of the critical importance of maintaining interracial harmony within the country’s social and political landscape.

Empirical Strategy

The introduction of Social Studies for all grade 9 students in 2001 means that those born on or after January 1, 1986, would have been exposed to the new subject. While a difference-in-differences design would typically be suitable for evaluating such a reform, it is not feasible in this context since (almost) all Singaporean children attend public schools, thus leaving no suitable control group of Singapore citizens who were unaffected by the reform across all birth years. As such, a regression discontinuity (RD) design appears to be the most viable approach to investigate differences in ethnic tolerance between individuals who were born just before and after the reform cutoff date. To this end, I conducted an observational survey comprising 2,000 respondents in November 2022.⁶ In order to increase the statistical power of the study, I specifically targeted Singapore citizens born between 1976 and 1995 to ensure a greater proportion of individuals born near the January 1, 1986, cutoff date.

The main outcome variable is *Ethnic Tolerance*.⁷ To maintain consistency with the second study, I included the same set of ICCS questions on ethnic tolerance in this survey. Specifically, respondents rated their level of agreement using a 4-point Likert scale on five statements concerning the equitable treatment of different ethnic groups in Singapore: (1) ‘All ethnic groups should have an equal chance to get a good education in Singapore,’ (2)

⁶Section OA1b provides information regarding the sampling design and survey protocols. The survey received approval from the author’s institution’s IRB on October 28, 2022 (IRB ID#202206080).

⁷Section OA1c describes the variables used in this study and their summary statistics.

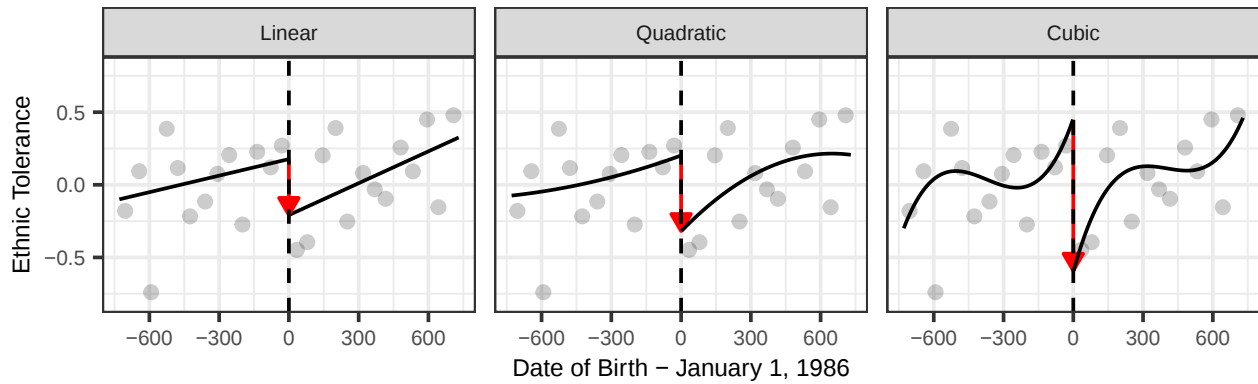
‘All ethnic groups should have an equal chance to get good jobs in Singapore,’ (3) ‘Schools should teach students to respect members of all ethnic groups in Singapore,’ (4) ‘Members of all ethnic groups should be encouraged to run in elections for political office in Singapore,’ and (5) ‘Members of all ethnic groups should have the same rights and responsibilities.’ The five items yield a Cronbach’s alpha coefficient of 0.63, indicating a moderate level of internal consistency. I factor analyzed the responses to produce a standardized composite variable, *Ethnic Tolerance*, with larger values corresponding to greater ethnic tolerance.

Findings

Figure 2 illustrates the relationship between *Ethnic Tolerance* and survey participants’ dates of birth. The running variable, which is plotted on the horizontal axis, represents the difference in the number of days between each respondent’s date of birth and the reform’s cutoff date on January 1, 1986. That is, respondents born before the cutoff (negative values) were not exposed to the new civic education course, while those born after the cutoff (positive values) were treated. The main finding from Figure 2 contradicts the initial expectation that civic education exposure should improve intergroup tolerance in Singapore. Across the linear, quadratic, and cubic polynomial RD plots, there is a noticeable decline in *Ethnic Tolerance* scores when comparing individuals born immediately before and after the January 1, 1986 cutoff.

Next, I estimate the local average treatment effect (LATE) of the Social Studies reform on *Ethnic Tolerance*. The main predictor, *Social Studies*, is a binary predictor that equals one for respondents born on or after January 1, 1986, and 0 otherwise. Table 1 presents the results from three RD models. The ‘Linear’ model estimates the LATE using a local linear regression with a mean-squared-error (MSE) optimal bandwidth ($= \pm 1,417$ days from cutoff) and larger triangular kernel weights assigned to individuals born closer to the cutoff (Calonico, Cattaneo and Titiunik, 2015). The ‘Quadratic’ and ‘Cubic’ models use the full sample and allow for varying slopes on either side of the cutoff, with quadratic and cubic

Figure 2: **Effect of Social Studies on Ethnic Tolerance – RD Plots**



Notes: The plots were created using the `rdrobust` package in R (Calónico, Cattaneo and Titiunik, 2015). The running variable on the horizontal axis measures the difference in the number of days between each respondent's date of birth and January 1, 1986. The gray dots represent the raw data, which are averaged in bins of 100 days.

polynomials of the running variable, respectively. Across all specifications, the coefficient for *Social Studies* is consistently negative, suggesting that exposure to the new civic education course is linked to a reduction in *Ethnic Tolerance*. However, none of the estimates reach conventional levels of statistical significance at $p < 0.05$. Overall, the findings provide no evidence that the civic education reform in Singapore led to any meaningful improvement in *Ethnic Tolerance*.

Table 1: **Effect of Social Studies Reform on Ethnic Tolerance – RD Estimates**

DV =	Ethnic Tolerance		
Model =	Linear	Quadratic	Cubic
Social Studies	−0.202 (0.183)	−0.141 (0.135)	−0.329 [†] (0.180)
<i>N</i>	838	1,973	1,973
RD Bandwidth	1417	Full Sample	Full Sample
Kernel Weights	Triangular	Uniform	Uniform

Notes: Table entries are standardized coefficient estimates. The 'Linear' model shows bias-corrected estimates obtained using the `rdrobust` package in R. The 'Quadratic' and 'Cubic' models report coefficients estimated using varying quadratic and cubic slope models, respectively, for the full sample. The RD bandwidth specifies the number of days before or after the cutoff date within which respondents' birthdates must fall to be included in the analysis. Robust standard errors are provided in parentheses. Table OA1d.4 displays the full regression results. ** $p < 0.01$; * $p < 0.05$; [†] $p < 0.1$.

I perform several additional tests to validate the main findings, the details of which can be found in section OA1d of the Online Appendix (OA). First, I conduct balance tests on several pretreatment covariates, including gender, ethnicity, parental birthplace (whether born in Singapore), educational stream, and attendance at a Chinese-only school. Table OA1d.5 shows no evidence of imbalance. Second, an ex-post power analysis using the `rdpower` package in R (Cattaneo, Titiunik and Vazquez-Bare, 2019) yields a statistical power ranging from 0.828 to 0.912 (Table OA1d.6), exceeding the conventional threshold of 0.8 and indicating that the study was sufficiently powered to detect significant differences in ethnic tolerance at the cutoff. Third, I report covariate-adjusted estimates in Table OA1d.7, which account for the pretreatment covariates mentioned earlier. The results remain consistent with the main findings. Next, I conduct two sets of placebo tests by introducing artificial cutoff dates one year before and after the actual January 1, 1986, cutoff. The analysis of these placebo tests reveals no statistically significant discontinuities in ethnic tolerance at these artificial cutoffs (Tables OA1d.8 and OA1d.9). Finally, I demonstrate that the local linear regression findings are robust to different kernel weights and varying bandwidths (Table OA1d.10).

Taken together, the findings from the Singapore case cast doubt on the effectiveness of civic education in promoting ethnic tolerance. Despite the new curriculum's explicit focus on fostering interracial harmony, the evidence suggests that Social Studies did not significantly improve students' attitudes towards other ethnicities. This discrepancy between policy intentions and observed outcomes is striking and raises important questions. For instance, given that Singapore is an authoritarian regime, one crucial consideration is whether the absence of a positive effect might be related to the political context in which civic education is taught. Alternatively, the results may simply highlight the fact that the tolerance-inducing effect of civic education may not persist indefinitely. The survey sampled respondents who had left school for at least a decade, so it is possible that any positive effects derived from the new subject had diminished over time. In other words, the findings do not rule out the possibility that civic education might still have a positive short-term effect on ethnic

tolerance. The next section addresses these issues by examining civic education's influence on ethnic attitudes among eighth-graders across multiple countries and regime types.

Study 2: Cross-National Evidence from ICCS

The ICCS dataset offers a rich resource for examining the relationship between civic education and ethnic tolerance. It encompasses both student- and school-level data on various civics-related topics, including teaching methods for civic education and attitudes towards ethnic diversity. Using a stratified two-stage probability design, the ICCS first sampled schools from each of the 24 countries based on their student population size. Subsequently, a full class of eighth-grade students from each school was chosen to participate in the survey. The resulting data contains 90,000 student-level observations from 3,500 schools across 24 countries. In the following paragraphs, I outline the variables used in this study.⁸

Empirical Strategy

The outcome variable in this study is *Ethnic Tolerance*, which is measured using the same approach and items used in the previous study. I construct the composite variable by performing factor analysis on students' responses to the five statements (Cronbach's $\alpha = 0.85$). The resulting scores are then standardized to have a mean of zero and a standard deviation of one. The main predictor in the analysis is *Civic Education (Classroom)*. This variable equals one if a student attends a school where civic education is either taught as a standalone subject or incorporated into other humanities or social science subjects (such as social studies and history), and zero otherwise. This coding scheme is appropriate, as previous research has established that civic education is typically delivered through one of these two approaches in the classroom (Niemi and Junn, 1998, Chapter 4).⁹ About 90% of students in the ICCS

⁸See section OA2a for a detailed description and summary statistics of the key variables.

⁹The ICCS also measured a third type of civic education in the classroom – the integration of civics content across all subjects in a school. However, this measure is not included in *Civic Education (Classroom)* due to potential differences in the depth and focus of civics content compared to the other two teaching methods.

dataset attended schools that reported offering *Civic Education (Classroom)*.¹⁰ To capture the diversity in the delivery of civic education content, I code two additional variables: *Civic Education (Extracurricular)*, which equals one if a student's school provides civic education through extracurricular activities such as debating groups or political clubs, and *Civic Education (Experience)*, which equals one if civic education content is integrated into all aspects of a student's school experience.

The regression models include several sets of covariates at both the student and school levels. The first set captures students' demographic characteristics: *Female* is a binary variable that equals one if the student is female, *Student (Native)* equals one if the student was born in the country where the survey was administered, and *Dominant Ethnic Group* equals one if the student belongs to a dominant ethnic group. The last variable is cross-referenced against the Ethnic Power Relations (EPR) dataset (Vogt et al., 2015). Specifically, this takes a value of one if the student belongs to an ethnic group that is classified as a 'monopoly,' 'dominant' group, or 'senior partner' in the EPR dataset. The second set represents parental background: *Mother (Native)* and *Father (Native)* are binary variables indicating whether each parent was born in the country of test, while *Mother (Education)* and *Father (Education)* represent each parent's highest educational attainment. The third set measures students' school experiences: *Bullying* captures experiences of bullying, *Education* represents expected educational achievement, and *Civic Organization* indicates participation in at least one civic organization. The fourth set captures the school environment: *Private School* is a binary indicator for whether the school is private or public, *Classroom Openness* represents the school-level averages of students' opinions about classroom discussion of political and social issues, and *Minority* controls for the proportion of students who belong to non-dominant ethnic groups in the school. Lastly, the models include covariates measuring the degree of social tension in the school's neighborhood, including the salience of intergroup conflicts in the area (*Tension (Intergroup)*), the prevalence of poverty and unemployment in

¹⁰Figure OA2a.4 shows the number of schools offering *Civic Education (Classroom)* by country.

the vicinity (*Tension (Poor)*), and the frequency of criminal activities (*Tension (Crime)*).

Findings

I employ two sets of regression models. The first set uses ordinary least squares (OLS) regression with country fixed effects to investigate the association between civic education and ethnic tolerance. Given the sampling design of the ICCS, I compute robust standard errors clustered at the school level for the OLS models. To account for the hierarchical structure of the data, I also implement multilevel regression models with school and country level random effects to assess the robustness of the findings.

Table 2: **Effect of Civic Education on Ethnic Tolerance – ICCS Data**

DV =	Ethnic Tolerance					
Model =	OLS			Multilevel		
	(1)	(2)	(3)	(4)	(5)	(6)
Civic Education (Classroom)	−0.003 (0.018)	0.034 (0.031)	0.028 (0.031)	−0.001 (0.017)	0.017 (0.022)	0.005 (0.027)
Civic Education (Extracurricular)	0.001 (0.013)	0.022 (0.021)	−0.029 (0.022)	0.001 (0.013)	0.013 (0.015)	−0.018 (0.020)
Civic Education (Experience)	−0.004 (0.011)	−0.007 (0.017)	−0.008 (0.015)	−0.007 (0.011)	−0.003 (0.014)	0.005 (0.016)
<i>N</i>	71,320	71,320	31,665	71,320	71,320	31,665
Covariates	Yes	Yes	Yes	Yes	Yes	Yes
Ethnic Covariates	No	No	Yes	No	No	Yes
Sampling Weights	No	Yes	Yes	No	Yes	Yes
Student Variance	—	—	—		89.3%	
School Variance	—	—	—		5.7%	
Country Variance	—	—	—		5.1%	

Notes: Table entries are standardized coefficient estimates. Models 1-3 report robust standard errors clustered at the school level in parentheses, while Models 4-6 display conventional standard errors. All models include the following controls: gender, student’s nativity status, parental birthplace and education level, student’s experience with bullying, expected educational achievement, school-level average perception of open classroom discussions, participation in civic organizations, neighborhood social tensions, and school type (private or public). Models 3 and 6 additionally include ethnic covariates (*Dominant Ethnic Group* and *Minority*). The student, school, and country variances report the percentage of total variance explained by each random effect and the residual variance from a null model. Full results are reported in Table OA2b.13. **p < 0.01; *p < 0.05; †p < 0.1.

As shown in Table 2, civic education has no significant short-term positive effect on

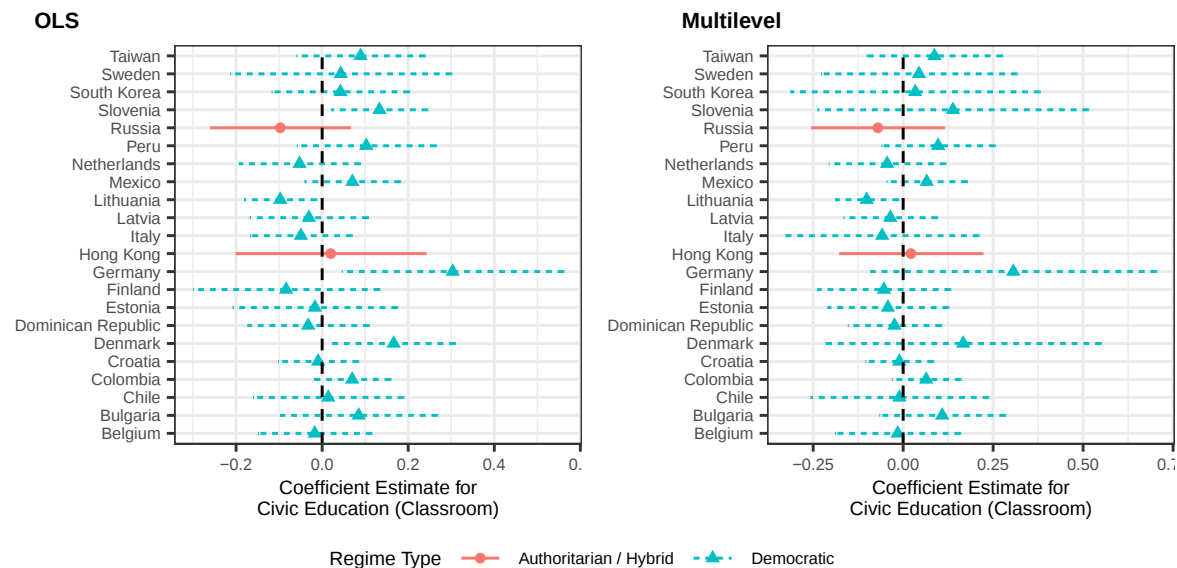
students' *Ethnic Tolerance*. None of the three teaching approaches – classroom instruction (*Civic Education (Classroom)*), extracurricular activities (*Civic Education (Extracurricular)*), or experiential learning (*Civic Education (Experience)*) – show statistically significant effects at $p < 0.05$. This finding holds for all model specifications, including those with sampling weights (Models 2 and 5) and those controlling for ethnic background such as *Dominant Ethnic Group* status (Models 3 and 6).¹¹ Interestingly, these null findings are also consistent with the results from the Singapore case study, further casting doubt on the effectiveness of civic education programs in fostering improvements in students' ethnic attitudes.

I conduct several additional tests to verify the null findings. First, I estimate a zero (or intercepts-only) model to examine the distribution of variance in the outcome measure, *Ethnic Tolerance*, across the three levels. The results are reported in the last three rows of Table 2. Notably, less than 6 percent of the variance in *Ethnic Tolerance* occurs at the school level. This suggests that school-level factors, including whether civic education is taught in the classroom (e.g., *Civic Education (Classroom)*), are unlikely to be strong determinants of *Ethnic Tolerance*. The second test involves a series of country-level replications of the regression models, which omit the country fixed/random effects but retain the same baseline covariates and sampling weights. According to Figure 3, only Lithuania shows a statistically significant association in both the OLS and multilevel models; however, the coefficients are negative. For all other countries, there is a consistent pattern of null effects, and this holds for both democratic (in blue) and non-democratic (in red) regimes. This further bolsters our confidence that the null results are not an artifact of the political system.

The next test addresses the potential concern of multicollinearity by plotting the Variance Inflation factors (VIF) for the main predictor and covariates in Figure OA2b.5. All VIF scores are well below the standard cutoff of 5, which suggests that the results are not significantly distorted by multicollinearity. As an additional check, I also disaggregate the main predictor, *Civic Education (Classroom)*, into its constituent parts: *Civic Education (Standalone)*, which

¹¹I estimate separate models controlling for ethnic covariates due to substantial missing data for these variables in the ICCS dataset.

Figure 3: Country Estimates of *Civic Education (Classroom)* on *Ethnic Tolerance*



Notes: Each point displays the country-level coefficient estimate for *Civic Education (Classroom)* on *Ethnic Tolerance*, and the horizontal lines represent the 95% confidence intervals. All models include the following controls: gender, student's nativity status, parental birthplace and education level, student's experience with bullying, expected educational achievement, school-level average perception of open classroom discussions, participation in civic organizations, neighborhood social tensions, and school type.

denotes whether civic education is taught as a separate subject, and *Civic Education (Social)*, which indicates whether civic education is integrated into social science subjects. The results of this analysis, which are presented in Table OA2b.14, remain consistent with the initial null findings. Finally, I explore whether the null results persist across the individual items that make up the composite outcome, *Ethnic Tolerance*. I regress each item on the same set of variables, with the estimates for *Civic Education (Classroom)* presented in Figure OA2b.6. None of the estimates is statistically significant, which reinforces the robustness of the overall null finding regarding the impact of civic education on students' ethnic attitudes.

Beyond Civic Education Content: The Role of Open Classrooms

Taken together, the findings from Studies 1 and 2 are consistently puzzling. In Singapore, where the civic education curriculum strongly emphasized the importance of interracial harmony and a shared national identity, a positive impact on ethnic tolerance would be expected.

However, the new course did not lead to any significant improvement in this regard. Even more perplexing is the fact that the null findings from Study 1 are mirrored in Study 2, the latter of which relies on a cross-national dataset that extends across multiple countries with varying regime types. Finally, civic education does not appear to have any short or long term effect on ethnic tolerance. These findings suggest that the content of civic education alone may be insufficient to improve tolerance towards other ethnic groups. Instead, it may be more fruitful to consider how non-content factors could enhance the effectiveness of civic education in fostering ethnic tolerance.

One promising non-content factor is an open classroom environment, which is defined as a space where ‘students experience their classrooms as places to investigate issues and explore their opinions and those of their peers’ (Torney-Purta et al., 2001, 137). Previous research has identified two features that characterize such environments (see Campbell, 2008; Miklikowska, Rekker and Kudrnac, 2022; Persson, 2015; Weiss, Ran and Halperin, 2023). First, open classrooms are characterized by an openness in content, where students and teachers can introduce and deliberate on issues not covered in the curriculum. Second, these classrooms are also open to diverse viewpoints, where teachers present varied perspectives on contentious issues while students are free to offer contrasting opinions on those topics.

Regarding the first feature, an open classroom environment may complement civic education by encouraging students to explore ideas and experiences beyond the confines of their textbooks. In terms of ethnic tolerance, this approach may provide students with many opportunities to reflect on and gain new insights into the multifaceted nature of ethnic discrimination in their daily lives (Miklikowska, Rekker and Kudrnac, 2022; Weiss, Ran and Halperin, 2023). As one student who participated in an open classroom initiative remarked, the process of deliberation with other students ‘helped me open my mind more about all sorts of issues’ (cited in Avery, Levy and Simmons, 2013, 111). Moreover, openness in content enables students to revisit and discuss civics-related topics with their peers, facilitating a deeper internalization of the content and the application of civic values such as mutual

respect during their conversations. Indeed, open classrooms have been linked to increased civic knowledge among students (Campbell, 2008; Persson, 2015).

The second aspect of open classrooms – i.e., openness towards diverse viewpoints – may also amplify the positive influence of civic education on ethnic tolerance. In addition to teaching students how to amicably resolve conflicts stemming from different political opinions (Campbell, 2008; Torney-Purta et al., 2001), this feature may cultivate a deeper appreciation that people can hold multiple perspectives on the same topic. As such, an open classroom environment may enhance students' cognitive capacity to consider the perspectives of others, which, in turn, should lead to increased levels of acceptance towards members of ethnic outgroups. This conjecture is corroborated by several experimental studies, which found that classroom deliberations on contentious public issues led to increased levels of perspective-taking among students (e.g., Avery, Levy and Simmons, 2013, 2014; Weiss, Ran and Halperin, 2023; Wen et al., 2023). For example, one study reported that students exposed to an open classroom setting and who did not believe their school should mandate school uniforms were more likely to provide more reasons why someone might *support* such a policy (Avery, Levy and Simmons, 2014). This suggests that open classrooms can foster empathy even when students may disagree on certain issues.

Overall, the two mechanisms suggest that the presence of an open classroom environment should exert a positive moderating effect on the relationship between civic education and ethnic tolerance, by (1) expanding students' knowledge and internalization of civics-related topics and principles, and (2) improving perspective-taking among students. In short, civic education should be most effective in promoting ethnic tolerance when it is taught in an open and inclusive setting. Conversely, the impact of civic education on ethnic tolerance should be negligible in more restrictive environments that do not encourage open dialogue and diverse perspectives. The following two sections explore how the presence or absence of an open classroom setting shapes the effectiveness of civic education by reexamining the Singapore case study and the ICCS data.

Revisiting Study 1: Civic Education in a Restrictive Learning Environment

Although there is no direct evidence linking the absence of an open classroom climate to the null findings in Study 1, several observers note that the manner in which Social Studies was taught in Singapore did not align with the two key features as described above (Ho, 2010; Sim, 2005). In terms of openness in content, teachers frequently prioritize content delivery and ‘teaching to the test’ over allocating time for classroom discussion on topics not included in the syllabus. This hesitation to engage in open discussions can be attributed, in part, to the high-stakes nature of the subject, as students are required to pass Social Studies in the GCE O’level examination to progress and secure admission to pre-tertiary institutions in Singapore. For example, Ho (2010, 238) notes that many Social Studies teachers in their study ‘constantly reiterated the requirements of the ‘O’ level examinations during the lessons.’ This emphasis on exam preparation led one student to comment that they were ‘not quite interested in social studies because of the exams’ (cited in Ho, 2010, 238).

The lack of openness in content was also evident in the limited application of the case studies to examine their relevance in the Singapore context. For example, although the teachers in their study devoted significant attention towards describing instances of structural and institutional discrimination against Tamils in Sri Lanka and Catholics in Northern Ireland, Ho (2010) reports that none of them encouraged students to reflect on whether similar forms of institutional privilege or racism might exist in Singapore. As a result, none of the interviewed students felt that there was a need to consider institutional or systemic causes of racial inequality in Singapore (Ho, 2010), despite the persistence of institutional and subtle racism in the country, such as discriminatory hiring practices and ethnic stereotyping in the media (e.g., Chew, Young and Tan, 2019; Velayutham, 2017).

Moreover, both teachers and students often refrained from discussing various alternative perspectives when addressing ethnic-related topics found in the textbooks. The following exchange, as recounted in Ho (2010, 236), best exemplifies the reticence among students to

participate in discussions on controversial political issues:

Teacher: Why are the Sinhalese and Tamils in conflict?

Students: (silence)

Teacher: How many of you think that there is genuine cooperation among races in Singapore? How many think that we are faking it? Don't worry, I'm not going to report you.

Students: [laughter]

More generally, this reluctance to initiate open classroom discussions among students and teachers stems from a deep-seated fear of broaching topics deemed too sensitive or potentially disruptive to societal order. It also reflects the widespread recognition that expressing controversial opinions may lead to negative repercussions for those who speak out (Baildon and Sim, 2009; Chua and Sim, 2015; Ho et al., 2017). One teacher jokingly remarked, '[W]e don't want a racial riot to break out from such debates during social studies lessons' (cited in Baildon and Sim, 2009, 417).

Taken together, the teaching of Social Studies in Singapore can be described as a distinctive blend of delivering ethnically salient content within a constrained learning environment. Although the curriculum stressed the importance of maintaining intergroup harmony in Singapore, classroom discussions on controversial issues and dissenting opinions were discouraged. Importantly, the above anecdotal accounts suggest that the lack of openness in content and limited exposure to diverse perspectives may have contributed to the ineffectiveness of Social Studies in promoting greater ethnic tolerance in Singapore.

Revisiting Study 2: Moderating Impact of Open Classrooms

To conduct a quantitative test of the moderating effect of open classrooms, I reanalyze the ICCS data using six items to measure *Classroom Openness*.¹² These items capture two key

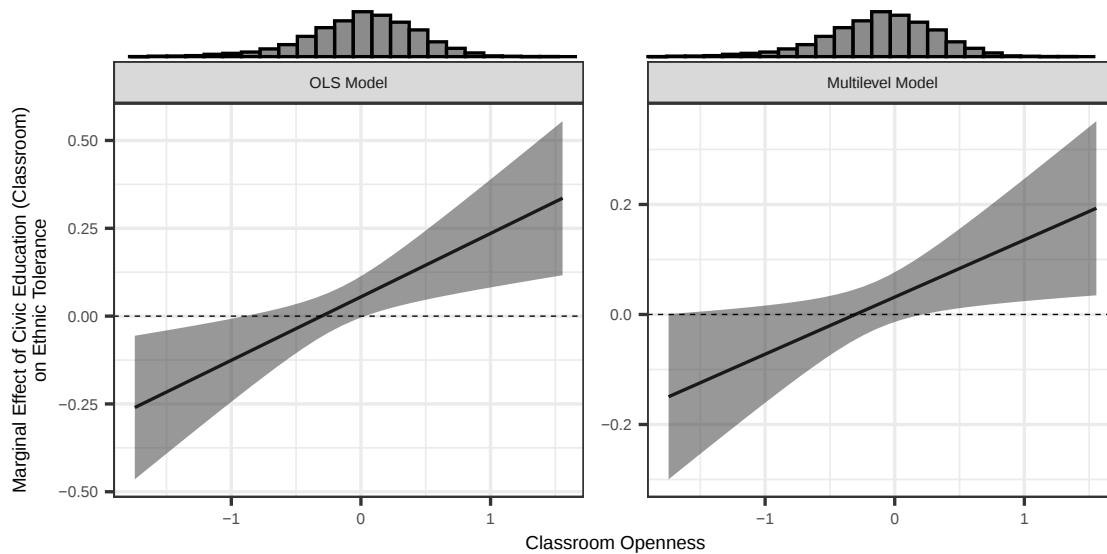
¹²This variable was included as a control in Study 2.

features of open classrooms: (1) openness in content and (2) openness towards diverse viewpoints. For content openness, the ICCS asked students about the frequency with which they had the opportunity to initiate discussions on current political events in the classroom. For viewpoint openness, students reported how often teachers encouraged discussions with peers holding different opinions, whether they felt free to express dissenting views, and how frequently teachers presented multiple perspectives on issues. The responses to these items are factor analyzed to create a standardized composite measure (Cronbach's $\alpha = 0.79$), with higher values indicating a more open classroom environment. Finally, *Classroom Openness* is measured using school-level averages of this composite measure. This should mitigate the possibility that each student's perception of classroom openness might be confounded by other unobserved factors, such as their personalities and readiness to express their views. Importantly, this variable measures the overall perceptions of classroom openness, regardless of whether *Civic Education (Classroom)* was part of the school's curriculum. Indeed, among students who did not receive any classroom-based civic education, 45% reported above-average levels of open classroom discussions.

Empirically, I interact *Civic Education (Classroom)* with *Classroom Openness* and plot the conditional marginal effects of the main predictor in Figure 4.¹³ The empirical patterns are consistent with the expectation that open classrooms amplify the positive impact of civic education on ethnic tolerance. Among students in classrooms with low openness (about 1.7 SD below mean), classroom-based civic education either negatively affects ethnic tolerance (OLS model) or has no significant impact (multilevel model). However, as *Classroom Openness* increases, the positive impact of classroom-based civic education becomes more pronounced. At the highest level of *Classroom Openness* (or about 1.5 SD above mean), *Civic Education (Classroom)* has a positive and statistically significant effect on students' *Ethnic Tolerance* in both the OLS model ($\beta = 0.34$ SD, $p = 0.003$) and the multilevel model ($\beta = 0.19$, $p = 0.017$). These results remain robust when using student-level rather than

¹³The OLS and multilevel regression results are displayed in Table OA3a.15.

Figure 4: Marginal Effects of Civic Education on Ethnic Tolerance, Conditional on Classroom Openness



Notes: The figure presents the marginal effects of *Civic Education (Classroom)* on *Ethnic Tolerance* at various levels of *Classroom Openness*, together with their 95% confidence intervals. The effect sizes and statistical significance for the left and right plots are computed from Table OA3a.15. The vertical bars reflect the frequency distribution of *Classroom Openness* – i.e., school-level averages of students’ perceptions of classroom openness. The models include sampling weights and the following controls: gender, student’s nativity status, parental birthplace and education level, student’s experience with bullying, expected educational achievement, participation in civic organizations, neighborhood social tensions, and school type.

school-level averages of *Classroom Openness* (Table OA3a.16 and Figure OA3a.7).

To put the effect sizes into context, consider the ICCS item asking students whether they agree with the statement, ‘Members of all ethnic groups should be encouraged to run in elections for political office.’ The standard deviation of students’ responses to this item is 0.8. This implies that, at the highest level of *Classroom Openness*, classroom-based civic education would lead to a modest increase of about 0.15-0.27 in responses to this item on a 4-point Likert scale. It should be highlighted that the mean response to this item was already high, at 3.08 out of a maximum of 4. Despite this, the fact that we can still detect a statistically significant difference underscores the crucial role of open classroom instruction in generating a positive moderating influence on the relationship between civic education and ethnic tolerance.

Lastly, I examine whether the observed patterns stem from changes in students' civic knowledge and perspective-taking ability. Specifically, an open classroom climate may enhance civic education's effectiveness in promoting ethnic tolerance by (1) facilitating students' internalization of the content and values taught in civics textbooks and (2) improving their perspective-taking ability. If this was true, then open classrooms should also have a positive moderating influence on students' civic knowledge and perspective-taking ability. I employ two separate measures to test the proposed mechanisms. *Civic Knowledge* is measured using an ICCS composite index derived from a test of students' knowledge and understanding of concepts and issues related to civics and citizenship. *Perspective-Taking* is measured on a 4-point Likert scale assessing students' agreement with the importance of 'respecting the rights of others to have their own opinions,' where higher values indicate stronger agreement. I then conduct several regression analyses to examine how the interaction between civic education and classroom openness affects these outcome measures. The results provide preliminary support for one of the two mechanisms. Although there is no apparent moderating effect on civic knowledge (see Table OA3a.17 and Figure OA3.8), the findings reveal a similar pattern for perspective-taking ability, where a positive and statistically significant interaction term is observed in both the OLS and multilevel models (Table OA3a.18 and Figure OA3a.9).¹⁴

Overall, the evidence from a reanalysis of the ICCS dataset supports the claim that positions classroom openness as a critical moderating factor in the relationship between civic education and ethnic tolerance. Although the findings presented here are exploratory and correlational, they nonetheless signal the promise of open classroom environments in civic education teaching. As such, future research should undertake more rigorous experimental designs to provide a more definitive understanding of how civic education content and classroom openness work together to foster both short- and long-term ethnic tolerance among children and adults.

¹⁴It is worth stressing that the independent effect of *Classroom Openness* remains positive and statistically significant for both *Civic Knowledge* and *Perspective-Taking* in all model specifications.

Conclusion

This article offers a nuanced perspective on the connection between civic education and ethnic attitudes across two studies. In Study 1, I examine an education reform in Singapore that quasi-randomly assigned students to a new civic education course. Despite its strong emphasis on promoting ethnic cohesion, the evidence indicates that the introduction of this new course did not improve ethnic tolerance among students exposed to it. Study 2 corroborates these findings through a cross-national analysis of the ICCS data, revealing a consistent pattern of null effects between civic education and ethnic tolerance across multiple countries. To understand the factors influencing civic education's effectiveness in promoting ethnic tolerance, I explore the role of open classrooms. This investigation is motivated by existing qualitative research suggesting that the restrictive nature of Social Studies classes in Singapore may explain the null findings in Study 1. Revisiting the ICCS data with this perspective, I find that civic education is positively associated with ethnic tolerance primarily among students who perceive high levels of classroom openness. In contrast, civic education did not improve ethnic tolerance among students who experienced closed learning environments. Taken together, the results shed light on the importance of integrating open and inclusive discussions into the classroom environment to enhance the positive effects of civic education on ethnic tolerance.

This paper makes three important contributions. First, it identifies the specific conditions necessary for civic education programs to effectively reduce intolerance towards ethnic outgroups. The key insight of this article is that merely including ethnically inclusive content in civics curriculum is insufficient to generate substantial changes in attitudes and behaviors towards other ethnicities. To maximize their impact, these programs must be complemented by participatory methods that encourage open discussions and diverse opinions. More broadly, the results underscore the importance of examining how various aspects of the civic education experience can foster more tolerant mindsets. These include pedagogy, teacher quality, test-

ing requirements and structure, classroom diversity, and so on. Future research should focus on how each of these elements can enhance or diminish the effectiveness of civic education in improving a range of political and social outcomes. As Finkel, Horowitz and Rojo-Mendoza (2012, 63-64) aptly note, ‘changing core democratic values requires frequent, focused training with active, participating teaching methodologies and with high-quality instruction.’

Second, this article emphasizes the potential of civic education and open classrooms as early-life interventions to reduce prejudice. Considering the mixed or short-lived results of many proposed interventions aimed at mitigating intergroup prejudice, it is sensible to focus on education or other early life interventions, such as parental socialization, to cultivate greater ethnic tolerance from a young age. This focus is particularly crucial because political attitudes and social dispositions are deeply rooted during childhood and tend to be resistant to change in adulthood (Sears and Funk, 1999; Tesler, 2015).

Finally, the findings from this research have significant implications for education policy-makers and practitioners. While the idea of promoting an open classroom climate to enhance ethnic tolerance is not new, the results place particular emphasis on the vital role of such an environment within the context of civic education. They underscore that civic education cannot fully achieve its goal of improving ethnic tolerance among today’s youths without the incorporation of open classroom discussions. This insight highlights the importance of creating an inclusive and open learning environment to effectively implement civic education programs and achieve their desired outcomes.

Data Availability Statement

All data and replication code will be available through the Comparative Political Studies Dataverse, including the original Singapore survey data and ICCS 2016 data.

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