Arts Participation as a Form of Voluntary Association Membership: A Unique Predictor of Adolescents' Civic Behaviors and Attitudes

(working paper)

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ABSTRACT

The purpose of this project was to examine the effect of arts participation on young people's civic attitudes and intended behavior, using data from two international studies of youth civic engagement (the 1999 Civic Education Study [CIVED:99] and the 2009 International Civics and Citizenship Education Study [ICCS:09], both by the International Association for the Evaluation of Educational Achievement). An item in CIVED:99 assessing whether participants had ever participated in art, music, or drama groups loaded onto a scale with other items assessing youth organizational participation (e.g., human rights organizations, student councils), while an item in ICCS:09 assessing respondents' participation in music or drama organizations outside of lessons in the school context loaded onto a scale with items assessing youth civic participation at school. In both studies, arts participation was more frequent among female respondents and among those from more resourced home backgrounds, even controlling for overall levels of participation. Arts participation was a unique, significant predictor of attitudes toward historically-disenfranchised groups in CIVED:99, and was a unique predictor of trust and expected future participation in informal, local civic activities in ICCS:09. Several of the associations varied by country and by individual background.

EXECUTIVE SUMMARY

Social capital is the crux of civic engagement in a civil society (Putnam, 2000), with many scholars employing this concept in studies of adult membership in voluntary associations. Barber and Torney-Purta (2014) argued that voluntary association membership in youth can have parallel effects on social capital to those observed in research on adults. In particular, youth organizations (including those located in schools) serve as an introduction to civic life among young people, who are developing attitudes and conceptualizations of citizenship that will serve as the basis for their eventual participation as adults (Torney-Purta & Barber, 2011).

Arts participation has been studied as a particularly effective means of building social capital in adults (Carr, 2006; Coffman, 2006), although there are implications of this research on the benefits of such experiences for youth (Hodges, 2005). Arts education and performance provide ample opportunities for individuals to work together toward a common goal, creating a "mediating space" for individuals of different groups as they work collaboratively toward a common good (Carr, 2006; Jones, 2010). From a developmental perspective, social music groups in particular promote team-role behavior, leadership, and the navigation of positive collaborative environments from youth (King, 2006) to adulthood (Murninghan & Conlon, 1991). However, somewhat less is known about the role that such organizations could play in developing civic competencies, despite calls for research in this area (Jones, 2010). While a some work has found positive association between arts participation and prosocial civic participation (LeRoux and Bernadska, 2014), it has not considered other forms of voluntary association membership to determine what was unique about arts participation. This study bridges this gap in the literature by considering the unique predictors and outcomes of participation in art, music, and drama

activities apart from the effects of general voluntary organizational membership. It also extends upon previous literature to provide insight on the importance of such groups in youth.

Study Methodology

In this study, we conducted secondary analyses on data from two international surveys of civic engagement: The Civic Education Study of 1999 (CIVED:99), conducted in 28 countries, and the International Civics and Citizenship Education of 2009 (ICCS:09), conducted in 38 countries. Both were conducted by the International Association for the Evaluation of Educational Achievement (IEA). We used sophisticated measurement techniques incorporating confirmatory factor analyses and item response theory approaches to create scales of youth civic participation, and used multilevel linear and generalized linear models to examine predictors of arts participation and how arts participation, in turn, predicts civic outcomes, while accounting for variability across schools and across national contexts.

Key Findings

Arts Participation as an Indicator of School/Community-Based Civic Participation:

- In CIVED:99, participation in art, music, or drama organizations could be included in a well-fitting scale of civic participation. Other activities included in this scale included youth organizations sponsored by a political party or labor union, environmental organizations, human rights organizations, organizations that do voluntary work to help in the community, organizations that collect money for charity, and cultural organizations.
- In ICCS:09, the wording of the questions pertaining to current civic participation was changed to separate activities thought to happen in the community from those that happened in the school context. Participation in music and drama organizations outside of regular lessons were considered as a “school” activity alongside participation in debates, elections

for student representatives, decision-making, and discussions in student assemblies, as well as running as a candidate for student council or class parliament. Further analyses of both community and school items did not lend support for a uni-dimensional scale of civic participation mirroring the one created for CIVED; therefore, the analyses presented here make use of the Civic Participation at School scale in the ICCS dataset.

Differential Item Functioning of Arts Participation in a Scale of Civic Participation:

- In CIVED:99, students from more resourced educational backgrounds (in terms of parental education and the number of books in the house) and who anticipated completing more years of education themselves were more likely to participate in the arts, even after controlling for general organizational membership. Female students and students who more regularly spoke the language of the test at their home were also more likely to participate in the arts. However, the strength of association between arts participation and overall organizational membership did not vary by these demographic characteristics.
- Similarly, in ICCS:09, female students and students from more resourced educational backgrounds were more likely to have stronger histories of arts participation, even after controlling for overall civic participation in school. Unlike what was observed in the CIVED:99 study, arts participation was also less strongly related to overall civic participation in school for these groups of students.

Unique Effects of Arts Participation Over and Above General Civic Participation:

- In CIVED:99, arts participants had more supportive attitudes toward disenfranchised groups—specifically, immigrants, ethnic minorities, and women—than did non-participants. The overall scale of organizational membership was not significantly related to such attitudes. Further, the effect of arts participation on attitudes toward disenfranchised groups

varied by demographic characteristics of students. The gender gap in support for immigrants' rights was smaller for arts participants than for those who did not participate, while the effect of home language on support for immigrants seems driven primarily by strong attitudes among those speaking other languages and participating in the arts. The effect of arts participation on support for ethnic minorities was stronger for students from stronger home educational backgrounds (i.e., those with more literacy resources at home and whose parents had more education).

- In the ICCS (2009) study, arts participants were more trusting of social institutions and more likely to plan on participating in informal political activities and legal forms of protest, even after taking into account general levels of school-based civic participation. Further, the effects of home literacy resources on informal civic activities was stronger for those with a history of arts participation than for those with no history. (Other significant interactions indicated variation in the strength of associations between predictor variables and civic outcomes that were, on average, not significant.)
- Finally, the associations between arts participation and various civic outcomes varied from country to country in both studies. Generally speaking, the relative magnitude of correlations between arts participation and civic engagement within countries differed depending on the specific civic outcome examined. However, a small number of countries have correlations that are fairly consistently larger (e.g., Czech Republic in CIVED:99; Finland in ICCS:09) and are worthy of future study. Other countries have correlations that are consistently smaller compared to others in the sample (e.g., Paraguay and Mexico in ICCS:09).

Conclusions and Next Steps

Overall, these findings suggest that researchers interested in the impact of arts programs on civic development may benefit from considering such participation in the broader context of a student's participation in community- or school-based activities. At the same time, this work illustrates to developmental psychologists interested in youth civic engagement the importance of considering the civic benefits of membership in organizations beyond the student councils and voluntary organizations that are traditionally of focus. Further research employing these datasets will create separate models for specific countries in order to better understand how arts participation supports civic engagement in specific cultures and educational policy contexts. Further research using other data sources should also look more specifically at differences in outcomes of different types of arts participation, or of specific experiences within the context of arts organizations.

ARTS PARTICIPATION AS A FORM OF VOLUNTARY ASSOCIATION MEMBERSHIP: A UNIQUE PREDICTOR OF ADOLESCENTS' CIVIC BEHAVIORS AND ATTITUDES

Introduction

As globalization increases and traditional forms of civic participation decline, there is renewed interest in how young people are prepared for their roles as citizens. From this contemporary perspective, civic competency includes not only participation in voting activities, but also support for participation among diverse groups of citizens and a willingness to work in groups with others, whether in the local community or more broadly drawn, to facilitate social action (Hoskins, Barber, van Nijlen, & Villalba, 2011). An extensive body of research has connected youth activity participation to developmentally-appropriate civic outcomes and, eventually, to engagement in young adulthood (e.g., Barber, Mueller, & Ogata, 2013; Hart, Donnelly, Youniss, & Atkins, 2007; McFarland & Thomas, 2006); however, most attention is given to activities that mirror adult civic outcomes of interest (e.g., volunteer activities predicting volunteerism; student council activities predicting political activity). To encourage a broader range of young people to become civically engaged, it is necessary to consider how other common (but less researched) activities may have similar impact.

Performing arts activities, including music and drama organizations, are an ideal context to study for this purpose. Recent calls have been made by scholars in arts-related fields to consider the role that the arts may play in civil society (e.g., Jones, 2010), and such work would complement existing research from the fields of developmental and political psychology by explicitly considering how additional, specific activities may shape young people’s civic competencies. The purpose of this project is to explore this by examining arts activities both as

an indicator of general organizational membership and, simultaneously, as a unique predictor of civic outcomes in its own right. This project increases the diversity of fields of expertise that contribute to arts-related research by integrating research from the fields of arts education and community arts activities (which focuses on the unique role that the arts play in development) along with literature on civic engagement and more general voluntary organizational membership that is typically written for applied psychological audiences. In doing so, this work will heighten the relevance and significance of arts-related research to policy and practitioner organizations who are focused on honing young people's citizenship competencies.

Review of Literature

Social capital, defined by Fukuyama as "an instantiated informal norm that promotes cooperation between two or more individuals" (1999) is the crux of civic engagement in a civil society (Putnam, 2000). However, numerous accounts in the empirical literature point to a dramatic decline in social capital over the past several decades, with the potential to cause severe threats to the flourishing of societies in a globalized era (Jones, 2010). Specifically, such an emphasis on group solidarity within individuals, while positive, comes also with the risk of promoting hostility toward outgroups (Fukuyama, 1999). As an example, as global migration rates continue to rise (United Nations Department of Economic and Social Affairs, & Organisation for Economic Co-operation and Development, 2013), an increasing number of communities are experiencing ethnic diversification that hinders social trust (Putnam, 2000; Stolle, Soroka, & Johnson, 2008). These anti-trust effects are particularly salient immediately following this diversification, when community members have not had opportunities to build social solidarity amongst one another and turn instead further toward their ingroups for social support. Building social ties with such outgroup community members, such as neighbors, has

been shown to have a mediating effect on the relationship between ethnic diversification and social trust, increasing trust (or, at least, negating the negative short-term effects of diversification) (Stolle, Soroka, & Johnson, 2008). The construction of social ties is a deliberate process of immersing oneself in situations that foster communication between people of different backgrounds and life experiences.

While social capital theory has been employed extensively in studies of voluntary association membership in adult civic engagement (e.g., Helliwell & Putnam, 2004; Putnam, 2000; Requena, 2002), its role for youth is somewhat less clear. Some have argued that social capital theory frameworks have limited value for understanding young people's experiences (Morrow, 1999), and others have focused primarily on social capital as developed through the interactions that children have with their parents (Coleman, 1988). However, Barber and Torney-Purta (2014) argued that organizational memberships among young people can have parallel effects to those observed in research on adults. According to the Communities of Practice paradigm (Lave & Wenger, 1991), youth organizations serve as an important and developmentally-appropriate introduction to civic life among young people. Not yet full citizens, youth can be characterized as "emergent participatory citizens" who, through their social interactions in youth networks and with adults, are developing attitudes and conceptualizations of citizenship that will serve as the basis for their eventual participation as adults with full rights and responsibilities (Torney-Purta & Barber, 2011). With this in mind, an extensive body of research has connected youth activity participation to developmentally-appropriate civic outcomes and, eventually, to engagement in young adulthood (e.g., Barber, Mueller, & Ogata, 2013; Hart, 2007; McFarland & Thomas, 2006).

Somewhat similarly, music has been studied as a particularly effective means of building social capital in adults (Carr, 2006; Coffman, 2006), although there are implications of this research on the benefits of such experiences for youth (Hodges, 2005). Music education and performance provide ample opportunities for individuals to work together toward a common goal, creating a "mediating space" for individuals of different groups as they work collaboratively toward the good of the entire group (Carr, 2006; Jones, 2010). From a developmental perspective, social music groups promote team-role behavior, leadership, and the navigation of positive collaborative environments from youth (King, 2006) to adulthood (Murninghan & Conlon, 1991). Music participation provides opportunities for personal growth and the connection of musicians to both individuals in performance groups and to society as a whole, fostering civic engagement (Carr, 2006). The potential for music participation to further act as a mediating force for civic participation and improved social capital could grow exponentially as educators and musicians answer the call from Jones (2010) to increase the fostering of intercultural understanding and intercultural skills as a function of increasing civic engagement in music education and community music offerings.

Despite Jones' (2010) call to action, limited empirical research has looked specifically at the connection between involvement in music (or other collaborative art forms) and civic engagement. However, a few exceptions do exist. Schulz and Fraillon (2012) included participation in music or drama organizations as one item in a scale of school participation. When considered in tandem with other indicators of school participation (e.g., active participation in a debate, voting for school parliament), this scale had a positive association with expected political participation that was partially mediated by increased citizenship self-efficacy. Because only an overall scale was considered, however, it is unclear whether there is anything

unique about arts participation apart from its overall contribution to school participation. To contrast, LeRoux and Bernadska (2014) examined a positive association between arts participation and prosocial civic outcomes using data from the U.S. General Social Survey, while Catterall, Dumais, and Hampden-Thompson (2012) found similar associations in four longitudinal studies of young people in the United States. However, neither study considered other forms of voluntary organizational membership to determine what (if anything) was unique about arts participation. In truth, a more proper conceptualization of the impact of arts participation on civic engagement likely relies somewhere between these two representations: arts participation is one indicator of overall civic involvement, but one with a unique association with certain civic outcomes.

Presentation of Research Questions

- Question 1: Can indicators of arts participation be included in a well-fitting scale of young people's membership in voluntary organizations?
- Question 2: Who is especially likely to participate in arts activities, taking into account participation in voluntary associations more generally? Is arts participation especially tied to overall voluntary association membership for any particular group of students?
- Question 3: To what extent does arts participation uniquely predict civic engagement over and above other forms of voluntary association membership? Specifically,
    - a) Is arts participation especially predictive of civic outcomes for certain groups of students?
    - b) Is arts participation especially predictive of specific types of civic outcomes?

- c) Is arts participation especially predictive of outcomes in certain countries? In the context of the CIVED study (conducted in 1999) vs. in the context of the ICCS study (conducted in 2009)?

This study employed descriptive, quantitative research methods in a cross-national design to address this topic through secondary analysis of data from two large-scale, international surveys. Specifically, this analysis used a variety of measurement and correlational research techniques in order to answer the three research questions above.

Part One: Scale Development

Introduction to the CIVED and ICCS studies (overview of purpose, sample, procedures, and assessments)

Data for this analysis came from two large-scale, cross-national studies of civic education sponsored by the International Association for the Evaluation of Educational Achievement: The IEA Civic Education Study of 1999 (CIVED:99 Torney-Purta, Lehman, Oswald, & Schulz, 2001) and the IEA International Civics and Citizenship Education Study of 2009 (ICCS:09: Schulz, Ainley, Fraillon, Kerr, & Losito, 2010). Both studies employed multi-stage clustered sampling techniques to draw nationally-representative samples of students in the modal grade for 14-year-olds (CIVED:99) or students in eighth grade or its equivalent (ICCS:09) in participating countries; data from all participants with valid responses on variables of interest were included (N = 52,654 students in 4,107 schools in CIVED:99, N = 119,847 students in 5,360 schools in ICCS:09). Altogether, CIVED:99 had 28 participating countries (Australia, Belgium [French-speaking], Bulgaria, Chile, Colombia, Cyprus, Czech Republic, Denmark, England, Estonia, Finland, Germany, Greece, Hong Kong [SAR], Hungary, Italy, Latvia, Lithuania, Norway, Poland, Portugal, Romania, Russian Federation, Slovak Republic, Slovenia, Sweden,

Switzerland, and the United States), while ICCS:09 had 38 (Austria, Belgium [Flemish], Bulgaria, Chile, Chinese Taipei, Colombia, Cyprus, Czech Republic, Denmark, Dominican Republic, England, Estonia, Finland, Greece, Guatemala, Hong Kong [SAR], Indonesia, Ireland, Italy, Republic of Korea, Latvia, Lithuania, Luxembourg, Malta, Mexico, Netherlands, New Zealand, Norway, Paraguay, Poland, Russian Federation, Slovak Republic, Slovenia, Spain, Sweden, Switzerland, and Thailand). Details about the response rates and sampling strategies for each of the countries can be found in the respective technical reports for each study (Schulz, Ainley, & Fraillon, 2011, for ICCS:09; Schulz & Sibberns, 2004, for CIVED:99).

The CIVED:99 and ICCS:09 studies were both developed by IEA, and the assessment frameworks underlying the two studies were largely similar. Moreover, an explicit purpose for the ICCS:09 study was to explore how sociohistorical shifts over the first decade of the 21st century may have changed the nature of civic development and civic education over that time (Barber & Torney-Purta, 2012). For these reasons, it makes sense to consider data from these two studies together in a single project. However, while there is a similar underlying framework and rationale for these studies, with the exception of civic content knowledge there was no attempt to make measures from the CIVED:99 and ICCS:09 studies linked to one another in a way that encourages direct comparison between the two. While other work has resulted in common measures of attitudinal scales to use across cohorts (Barber & Ross, 2017; Munck, Barber, & Torney-Purta, in press), the different response options used for key variables in this analysis (see below) prevents a similar approach from being taken here. Therefore, only narrative, descriptive comparisons are made between findings from CIVED:99 and ICCS:09 data.

Staff from the National Endowment for the Arts have identified the CIVED:99 and ICCS:09 studies as "publicly accessible data sources that include arts-related variables" (National Endowment for the Arts, 2014). Both the CIVED:99 and the ICCS:2009 data sets included an item about arts participation in with a series of questions regarding organizational membership. In CIVED:99, participants were asked whether they had "participated in the following organizations," including "an art, music, or drama organization." Participants had the choice of responding "no" or "yes." In ICCS:09, participants were asked whether "at school, [they had] ever done any of the following activities," one of which was "voluntary participation in school-based music or drama activities outside of regular lessons" (IS2G15A). The response options were updated in ICCS:09 to include three options: "yes, I have done this within the past twelve months," "yes, I have done this but more than a year ago," and "no, I have never done this." To address Research Question One, these items will be considered along with other items capturing young peoples' voluntary organizational membership (e.g., youth groups associated with political parties, environmental organizations, community organizations, or ethnic/cultural organizations).

Table 1

Comparison of Extracurricular Participation Variables in the CIVED and ICCS Data Sets

Activity Participation Variables in CIVED99	Activity Participation Variables in ICCS09
Student Council/Student Government [Class or School Parliament]	Running as a Candidate for <class representative> or <school parliament> (s)
Youth Organization Affiliated with Political Party or Union	Youth Organization (c)
Environmental Organization	Environmental Organization (c)
Human Rights Organization	Human Rights Organization (c)
Group Conducting [Voluntary] Activities to Help in the Community	Voluntary Group Doing Something to Help the Community (c)
Charity Collecting Money for a Social Cause	Organization to Collect Money for a Social Cause (c)
Cultural Organization Based on Ethnicity	Cultural Organization Based on Ethnicity (c)
An Art, Music, or Drama Organization	**Voluntary Activity in School-Based Music or Drama (s)**
Organization Sponsored by a Religious Group	Religious Group (c)*
Group Which Prepares a School Newspaper	
A UN or UNESCO Club	
A Student Exchange or School Partnership Program	
Girl/Boy Scouts	
Computer Club	
A Sports Organization or Team	
	Young People Campaigning (c)
	Debate (s)
	Voting for a member of school parliament (s)
	Discussions at a student assembly (s)

*Variable was not included in the participation scales created by ICCS09 researchers
(c) Included in the set of items assessing civic participation in the community
(s) Included in the set of items assessing civic participation at school

Description of Scaling Procedures

To answer Question 1, we subjected the extracurricular activity participation items to analyses using the Alignment Method in Mplus Version 7.3 (Muthén and Muthén 1998-2015), a technique combining factor analytic and item response theory methods to assess comparability of

a model's fit across a large number of groups in a way that allows for a certain amount of non-invariance across groups, provided that configural invariance is achieved. Separate analyses were conducted for the CIVED and ICCS studies. Such an approach is thought to be preferable to traditional multiple-group confirmatory factor approaches when analyzing data from many groups, as the criterion of achieving scalar invariance is often cumbersome and overly-restrictive (Asparouhov and Muthén 2014). The ability to incorporate even in the presence of some non-invariance/differential item functioning also makes the technique preferable to traditional IRT approaches. Specifically, we used a restricted maximum likelihood estimator with fixed alignment (set for each analysis to the group recommended in a trial run of the data). This approach allowed us to run the data taking into account the complex sampling design of the CIVED/ICCS data, as students were nested in schools and design weights were applied in order to correct for unequal probabilities of selection into the sample of a particular country in a particular cohort. Further, the particular weight selected (referred to as the "senate weight") ensured that every cohort/country group was weighted equally in the analyses, regardless of differences in the sample sizes or population sizes of the countries examined.

We first conducted the analyses using the CIVED data, as there is no existing scale of extracurricular activity participation using these data, with the intent of using these analyses to inform the creation of a scale using ICCS data that drew upon both school- and community-oriented items. We examined sources of non-invariance across groups, with the goal of identifying a model where 75% or more of the parameters (intercept or loading) demonstrated approximate measurement invariance (a threshold supported by simulation studies conducted by Asparouhov & Muthén, 2014).

Results: CIVED

We first attempted to fit a model in which all of the extracurricular activity variables included in the CIVED data were indicators of a scale of organizational membership. The resulting scale did not demonstrate adequate fit across countries, as fewer than 75% of the parameters demonstrated invariance. In order to improve fit, we removed items that contributed poorly to a scale of organizational membership that could function across the 28 countries in the CIVED dataset. Decisions about which items to drop were both theoretically and empirically informed; in other words, they took into account both substantive reasons why mis-fit may be occurring as well as exploratory analyses of correlations among the items. Keeping in mind our eventual goal of comparing/contrasting the results from the CIVED study to those from the ICCS data, we also made a point of removing items that were dropped from the ICCS survey data, while keeping items that appeared in both studies. Eventually, the following items were dropped from analyses: group preparing a school newspaper, a United Nations (UN) or United Nations Educational, Scientific, or Cultural Organization (UNESCO) club, student exchange or school partnership, Girl/Boy Scouts, computer club, sports organization, and religious group. A summary of the resulting model of organizational participation appears in Table 2. The resulting scale was standardized to an international mean of 0 and a standard deviation of 1.

Table 2

Summary of Alignment Method Analysis for CIVED Civic Participation Scale

Variable	Fit Function Contribution	R-Square	Weighted Average Value across Invariant Groups	Groups with Approx. Measurement Invariance (% Total Groups)
Intercept				
Student Council	-188.822	.339	.861	11 (39%)
Youth Org.	-199.465	.686	2.777	24 (86%)
Environmental Org.	-169.113	.480	1.192	21 (75%)
Human Rights Org.	-184.773	.642	2.976	16 (57%)
Volunteer Group	-170.205	.601	1.165	16 (57%)
Collect Money	-188.180	.523	.643	15 (54%)
Cultural Org.	-196.125	.599	2.512	19 (68%)
Art/Music/Drama Org.	-192.602	.699	-.344	19 (68%)
Sum	**-1489.29**			**141 (63%)**
Loading				
Student Council	-346.417	.213	.690	26 (93%)
Youth Org.	-219.959	.416	1.326	27 (96%)
Environmental Org.	-219.144	.585	1.288	27 (96%)
Human Rights Org.	-222.643	.470	1.797	27 (96%)
Volunteer Group	-233.387	.534	1.623	25 (89%)
Collect Money	-288.713	.329	1.279	24 (86%)
Cultural Org.	-217.212	.555	1.397	25 (89%)
Art/Music/Drama Org.	-253.586	.000	.740	25 (89%)
Sum	**-2001.06**			**206 (92%)**
TOTAL	**-3490.35**	.480		**347 (77%)**

Results: ICCS

Similar procedures to those described above were also used to fit a parallel scale to the ICCS:09 data; however, model fit could not be achieved. There are two possible methodological reasons for the inability to fit similar scales between the 1999 and 2009 data. First, as illustrated above in Table 1, the ICCS researchers separated the items pertaining to extracurricular activities into two categories: one focusing on activities in which students participate in the community, and the other focusing on activities in which students participate in the context of school. While some items in the CIVED organizational participation scale were considered “school” variables

by ICCS (student council participation and, notably, arts participation), others were considered in the community context. This division of items into two sections (and the inclusion of other items, such as participation in debates, into the school section) may have resulted in a response-set bias, by which students responded to different items in the scale differently due to the organization of items into separate parts with different contexts assumed. (It may also be the case that arts participation happening outside of the school is not adequately captured in this new format.)

Second, because an additional response option was added to the participation items in the ICCS:09 study (separating out "participated but more than a year ago" from "participated within the past 12 months"), the models used to test for a new scale used polytomous (three-category), rather than dichotomous items. In the context of employing the Alignment method, this meant that there were two threshold parameters being estimated (rather than a single intercept parameter) in addition to the loading parameter. As illustrated in Table 2, there was considerably more non-invariance in item intercepts than in item loadings; however, they were able to average out across the model such that over 75% of the parameters were invariant. In the case of ICCS:09 extracurricular items, there was a similarly high degree of non-invariance in the threshold parameters. However, because there were two thresholds to only one loading parameter, the total proportion of invariant parameters did not average out to under 75%. Thus, the adequacy of this model for representing youth activity participation across school and community contexts remains in doubt.

Given the inability to create a scale combining both community and school contexts, we conduct the rest of the ICCS:09 data analyses using the "civic participation at school" scale that was created for the primary ICCS:09 reports. This scale included the school participation items flagged with an "s" in Table 1. IEA researchers used partial credit models (a type of item

response theory model[1]) to test model fit across countries, and reported their findings in the ICCS:09 Technical Report (Schulz et al. 2011). The resulting scale was originally set to an international mean of 50 and SD of 10, but was standardized to an international mean of 0 and SD of 1 in this analysis to facilitate interpretation.

Conclusions Related to Scale Development

In sum, there is evidence from both the CIVED:99 and the ICCS:09 studies that scales can be constructed that include arts participation alongside other forms of civic participation. In the CIVED:99 study, in which survey items assessed organizational participation without delineating between school-based or community-based settings, participation in the art, music, or drama groups fits in a scale with several other more traditionally civic-oriented forms of organizational membership for youth, including student councils and community volunteer groups. In the ICCS:09 study, changes to the survey instrument prevent the creation of a similar scale. However, school-based music or drama groups (excluding lessons) scaled alongside other forms of school-based participation, including student council membership and participation in school debates. Regardless of which model is used, the clear implication is that arts participation is one indicator of young people's involvement in school and community organizations. Thus, while it may have some unique effects on civic outcomes (including civic attitudes and intentions for future participation), it also has a high degree of shared variance with other indicators of organizational participation that need to be taken into account.

[1] We also used IRT techniques to explore the scale of organizational membership created in CIVED:99. While the overall model fit was satisfactory, there was considerable evidence of differential item functioning that we felt would be better handled by the Alignment Method reported on here.

Part Two: Differential Item Functioning

Description of the Analyses

To address Question 2 (regarding unique predictors of arts participation after controlling for general activity involvement), we employed a three-step process for assessing differential item functioning (DIF) using generalized linear models (Swaminathan & Rogers, 1990). This technique has been used in previous analyses of CIVED data to examine differential item functioning in students' civic knowledge (Torney-Purta, Wilkenfeld, & Barber, 2008). The dichotomous CIVED indicators required use of binary logistic regression. As in all logistic regressions, a logit link function is used to create a linear model of the log-likelihood of participating in arts activities given scores on a particular combination of predictors. This log-likelihood can then be transformed back into a predicted conditional probability of arts membership. To account for the nested sampling design, and to mirror analyses that will follow in addressing Question 3, a multilevel logistic model (a specific type of hierarchical generalized linear model) was employed using penalized quasi-likelihood estimation procedures. In the ICCS:09 data, an ordinal regression analysis using full penalized quasi-likelihood estimation was used to incorporate the extra response category option. In both cases, data were weighted using a within-school weight at level 1 (student level) and a school-level weight at level 2 (school level). Each country was given a weight of 1 at level 3 (country level) in order to ensure that each country was contributing equally to the analysis, regardless of the size of the population of the country or the sample size associated with a country in this particular study.

In step 1, the overall participation score was entered in as a predictor of arts membership. Because arts membership is one of the items within the scale of voluntary civic action, it is anticipated that overall organizational membership will be strongly associated with arts

participation membership specifically. However, it is possible that participants with certain characteristics will be more likely to participate in arts activities regardless of their overall participation levels. Step 2 tests for this possibility (i.e., it tests for uniform DIF) by entering in participant characteristics as additional predictors of arts participation. Finally, step 3 tests for possible interactions between individual characteristics and overall participation as they predict the likelihood that an individual participates in arts activities. This assesses whether the arts participation indicator is more strongly related to the overall civic action scale for certain groups of students (i.e., evidence of non-uniform DIF). In this report, we include only the final analyses (i.e., including all covariates and interactions if statistically significant).

Demographic and background items were considered as predictors when addressing Research Question 2 and as control variables when addressing Research Question 3. These include gender (male/female), immigrant status (born in the country/not born in the country), home language background, home literacy resources (student report of the number of books in the home), parental education (average level across parents), and expectations of further education. Gender and immigrant status were treated as dichotomous predictors; other predictors were standardized with a mean of 0 and a standard deviation of 1. When standardizing predictor variables, a weight was employed that corrected for sampling design while weighing each country equally (i.e., the "senate weight" provided by IEA data processors).

Results: CIVED

Table 3 reports the results of the multilevel logistic regression analyses predicting arts membership with overall organization membership and demographic characteristics. The level-1 model can be represented in equations as follows:

Link model: $\text{Prob}(Y=1|B) = P$

Structural model: log[P/(1-P)] = P0 + P1*(Org. Participation) + P2*(Language of Test) + P3*(Home Literacy) P4*(Exp. of Further Ed.) + P5*(Parental Education) + P6*(Gender) + P7*(Immigrant Status)

At higher levels of analyses (levels 2 and 3), we included random effects for the intercept, allowing the overall likelihood of arts participation to vary across schools and countries. The effects of predictors, however, were fixed across of schools and countries.

Every demographic variable except immigrant status was related to participation in an art, music, or drama group. Gender is the strongest of the demographic predictors included in the model; even after controlling for overall levels of organizational participation, female students are almost three times more likely than are male students to participate in the arts. Three additional predictors capturing aspects of students' educational backgrounds all have similar-strength effects on arts participation. One standard-deviation increases in home literacy resources and in expectations of further education increased the likelihood that a student participated in arts organizations by 15%, while a one standard-deviation increase in parental education increased the likelihood of a student's participation in the arts by 19%. The effect of speaking the language of the CIVED test on arts membership was smaller, with a 1 SD increase in the frequency of speaking the language associated with a 5% increase in the likelihood of arts membership.

Table 3

Summary of multilevel logistic regression analysis predicting arts participation: CIVED 1999.

Fixed Effect	Coefficient	Standard Error	T-ratio	Approx. d.f.	P-value	Odds Ratio	Confidence Interval
Intercept	-0.49	0.09	-5.44	27.00	<0.01	0.61	(0.51,0.74)
Org. Participation	1.52	0.07	20.82	52646	<0.01	4.56	(3.96,5.27)
Language of Test	0.05	0.02	2.59	52646	0.01	1.05	(1.01,1.10)
Home Literacy	0.14	0.03	5.27	52646	<0.01	1.15	(1.09,1.21)
Expect. of Further Ed.	0.14	0.03	4.84	52646	<0.01	1.15	(1.09,1.22)
Parental Education	0.17	0.02	7.35	52646	<0.01	1.19	(1.14,1.24)
Gender	1.09	0.08	12.88	52646	<0.01	2.98	(2.52,3.52)
Immigrant Status	-0.06	0.06	-1.06	52646	0.29	0.94	(0.84,1.06)
	SD	Variance	df	Chi-Square	P value		
School-Level Variance:	0.52	0.27	4079	6791.32	<0.01		
Country-Level Variance:	0.47	0.22	27	1145.01	<0.01		

Note: Unit-specific model reported. All predictors are centered on their grand means.

Results: ICCS

Table 4 reports the final ordinal regression analysis predicting arts membership from overall civic participation at school, relevant demographic variables, and their interactions. The level-1 model can be represented as follows:

Link models: Prob[R = 1|B] = P'(1) = P(1)

Prob[R <= 2|B] = P'(2) = P(1) + P(2)

Prob[R <= 3|B] = 1.0

Where: P(1) = Prob[Y(1) = 1|B]; P(2) = Prob[Y(2) = 1|B]

Structural models: log[P'(1)/(1 - P'(1))] = B0 + B1*(Civic Participation at School) + B2*(Speak Language of Test at Home) + B3*(Home Literacy Resources) + B4*(Expectations of Further Education) + B5*(Parental Education) + B6*(Gender) + B7*(Immigrant Status) + B8*(Participation*Home Literacy) + B9*(Participation*Parental Education) + B10*(Gender)

log[P'(2)/(1 - P'(2))] = B0 + B1*(Civic Participation at School) + B2*(Speak Language of Test at Home) + B3*(Home Literacy Resources) + B4*(Expectations of Further Education) + B5*(Parental Education) + B6*(Gender) + B7*(Immigrant Status) + B8*(Participation*Home Literacy) + B9*(Participation*Parental Education) + B10*(Gender) + threshold(arts participation more than 12 months ago)

As was the case before, the intercepts are allowed to randomly vary at the school and country levels, but slopes are estimated as fixed effects. Important to note in this model is that because the primarily role of the structural model is to predict the likelihood of falling into the first category ("no arts participation"), the signs of predictor variables are reversed (i.e., a negative coefficient is indicative of higher likelihood of arts participation, or lower likelihood of falling into the "no arts" category).

As anticipated, civic participation at school is strongly associated with arts participation; a one-unit increase in civic participation in school decreases the likelihood that a student has never participated in the arts by almost 80%. Further, there are several demographic predictors of arts membership even after controlling for civic participation at school. Regardless of overall school participation, male students, students whose parents have completed fewer years of schooling, and students with fewer literacy resources in home are all more likely to have never participated in the arts. Similar to the CIVED analysis, the effect of gender was the strongest, with female students 43% as likely to have never participated in the arts as male students. Also similar to the CIVED analysis, the effects of home literacy resources and parental education had similarly-sized effects, as a one unit SD in either decreased the likelihood of no arts participation (and increasing the likelihood of current arts participation) by 7%.

Table 4

Summary of logistic regression analysis predicting arts participation: ICCS 2009.

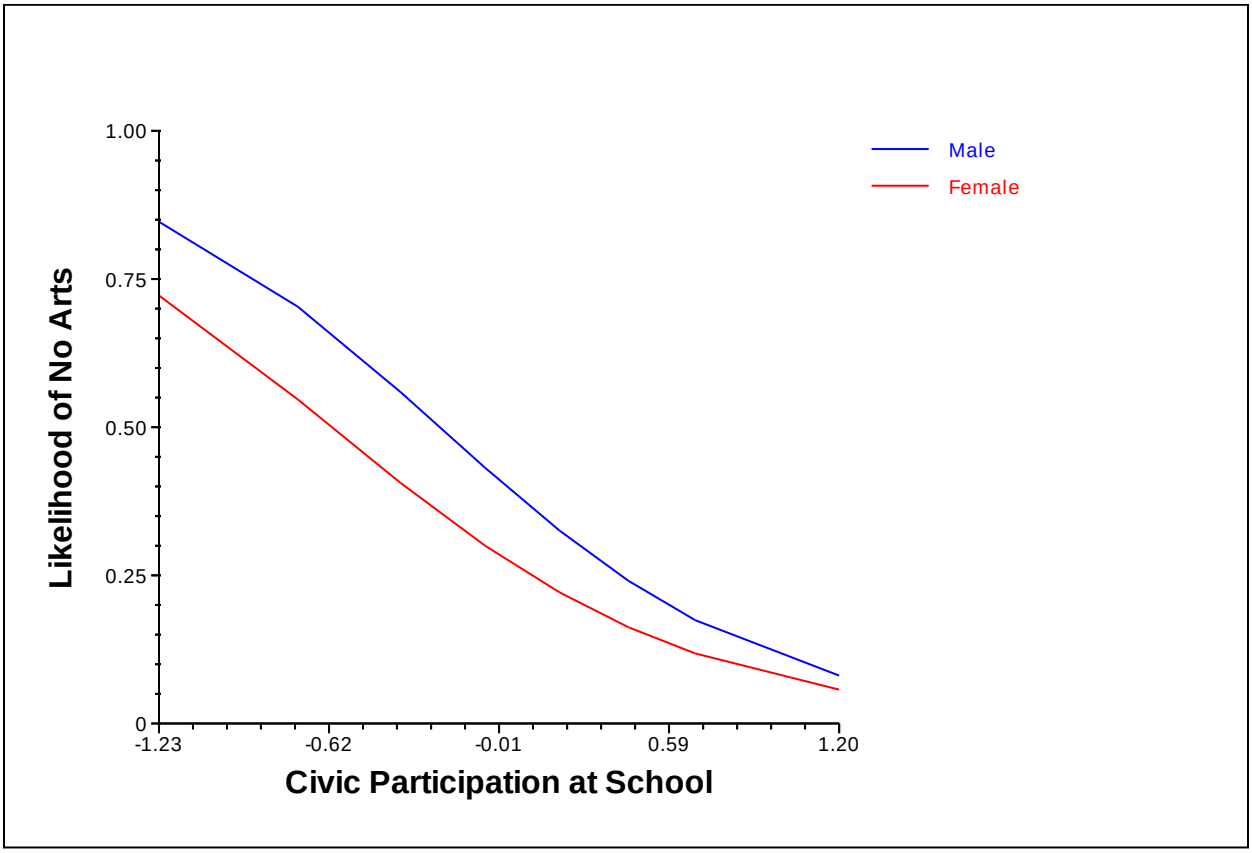
Fixed Effect	Coefficient	Standard Error	T-ratio	Approx. d.f.	P-value	Odds Ratio	Confidence Interval
Intercept	-0.67	0.10	-6.76	37	<0.01	0.51	(0.42,0.62)
Civic Participation at School	-1.63	0.03	-55.36	119835	<0.01	0.20	(0.18,0.21)
Speak Language of Test at Home	0.00	0.04	0.07	119835	0.95	1.00	(0.92,1.09)
Home Literacy Resources	-0.07	0.01	-5.28	119835	<0.01	0.93	(0.90,0.96)
Expectations of Further Education	0.00	0.01	-0.43	119835	0.67	1.00	(0.98,1.02)
Parents Education	-0.07	0.01	-6.13	119835	<0.01	0.93	(0.91,0.95)
Gender	-0.56	0.06	-9.09	119835	<0.01	0.57	(0.51,0.64)
Non-Native Status	0.03	0.04	0.80	119835	0.42	1.03	(0.96,1.11)
Home Literacy * Civic Participation	0.02	0.01	1.52	119835	0.13	1.02	(0.99,1.05)
Parents Education * Civic Participation	0.06	0.02	3.06	119835	<0.01	1.06	(1.02,1.10)
Gender * Civic Participation	0.16	0.03	5.40	119835	<0.01	1.18	(1.11,1.25)
Threshold (participation more than 1 year ago)	2.04	0.05	42.00	119835	<0.01	7.67	(6.97,8.43)
	SD	Variance	df	Chi-Square	P value		
School-Level Variance:	0.52	0.27	5322	11372.07	<0.01		
Country-Level Variance:	0.54	0.30	37	3210.14	<0.01		

Note: All predictors centered on their grand means.

However, for these same groups of students (male students, and students from home backgrounds with fewer educational resources), civic participation at school was more predictive of their arts participation. In other words, male students who participated in the arts were more likely than female students to be generally involved in the school, while there were higher proportions of female students who were only involved in the arts without being involved in their schools more generally. This is illustrated in Figure 1.

Figure 1

Conditional Probability of Never Having Participated in the Arts by Civic Participation at School and Gender



The same pattern was observed when examining the differential association of arts participation to civic participation at school for students from varying home backgrounds. Students with fewer educational resources at home who participated in the arts also tended to be involved in the school in other ways.

Conclusions Related to DIF Analysis

In both the CIVED:99 and the ICCS:09 data, female students and students with more educational resources at home were more likely to report participation in the arts, even when controlling for overall measures of organizational membership or civic participation at school.

While arts participation is similarly related to overall civic participation across demographic groups in CIVED:99, we find in ICCS:09 that, within certain groups who are generally less likely to participate in the arts, those who do participate in the arts are especially likely to *also* engage in their school in other ways.

Part Three: Predicting Civic Outcomes

Description of the Analyses

The third research question used multilevel regression models (in which students are nested within schools and within countries) to explore how arts participation predicted civic action over and above the more general scales of voluntary association membership. This is a flexible technique that allows the researcher to control for the complex sampling design employed in large-scale surveys and to include many predictors, covariates, and interactions regardless of measurement level. In order to answer Question 3 (regarding the unique predictive power of arts participation on civic engagement over and above other activities), we conducted another series of multilevel models. Because the outcomes of interest are continuous, rather than categorical, there was no need to employ link functions in this stage of analysis. Rather, we used hierarchical *linear* models to predict a continuous outcome with a linear combination of predictor variables, controlling for random effects of schools and countries. Control variables, scales of association membership, and the specific indicator for arts participation were considered as predictors. More specifically, Research Question 3a was explored by testing for possible interactions between arts participation and background/demographic variables, Research Question 3b was explored by comparing and contrasting findings from various outcomes (e.g., expected participation, pluralistic social attitudes), and Research Question 3c was explored by

comparing and contrasting findings gained from CIVED:99 to ICCS:09; important results are highlighted in the "conclusions" portion of this section.

Several civic-related outcomes were considered for this Research Question. Researchers involved in the primary reports coming from CIVED:99 and ICCS:09 engaged in an extensive process to identify and validate scales of citizenship conceptions, attitudes, and expectations for further participation. These scales have been tested to ensure reliability, structural validity, and comparability across countries within each cohort/study. More specific information on these scales can be found in reports by Husfeldt, Barber, & Torney-Purta (2005), Schulz et al. (2010), and Torney-Purta et al. (2001).

In order to connect youth association membership to future forms of civic action, several scales of intended future participation were considered, including expectations of informed voting (e.g., gaining information about candidates before voting), expected engagement in political activities (e.g., joining a political party), expectations of legal protest (e.g., boycotting/boycotting: ICCS only), informal political participation (e.g., discussing politics: ICCS:09 only), or community participation (e.g., intent to volunteer in the future: CIVED:99 only). Moreover, given the focus that some researchers in the field have placed on the arts for furthering multicultural understanding (Jones, 2010), scales reflecting pluralistic social attitudes were also considered as outcomes. These scales include support for the political rights of women, immigrants, and racial/ethnic minorities. Finally, we also considered the association of arts participation to trust, given the hypothesized role of organizational memberships in building strong social bonds through the creation of social capital.

Results: CIVED

Predicting civic outcomes. Arts participation had a unique effect over and above general organizational participation membership in school and relevant demographic characteristics on three scales that examine students' attitudes toward women, immigrants, and racial/ethnic minorities. In fact, while the individual item pertaining to arts participation was a significant predictor of the three outcomes, the overall scale of organizational participation was not related. The unique effects of arts participation on attitudinal outcomes are small: keeping in mind that CIVED:99 scales are set to have a mean of 10 and a SD of 2, the gap in attitudes between participants and non-participants was 7% of a standard deviation for support for women's rights, 5% of a standard deviation for support for immigrants' rights, and 3.5% of a standard deviation for support for the rights of racial/ethnic minorities.

Table 5

Summary of Hierarchical Linear Model Predicting Support for Women's Rights in CIVED:99 (Main Effects Only)

Fixed Effect	Coefficient	Standard Error	T-ratio	Approx. d.f.	P-value
Intercept	10.12	0.11	88.78	27	<0.01
Civic Participation	0.00	0.02	0.16	52645	0.87
Arts Participation	**0.14**	**0.03**	**5.38**	**52645**	**<0.01**
Language at Home	0.10	0.01	7.53	52645	<0.01
Home Literacy Resources	0.09	0.02	5.92	52645	<0.01
Expectations of Further Education	0.28	0.03	9.85	52645	<0.01
Parental Education	0.09	0.02	4.77	52645	<0.01
Female	1.23	0.08	16.24	52645	<0.01
Immigrant Status	-0.12	0.07	-1.65	52645	0.10
	SD	Variance	df	Chi-Square	P value
Level-1 Variance	1.70	2.89			
Level-2 Variance	0.36	0.13	4079	6973.79	<.001
Level-3 Variance	0.60	0.36	27	3461.18	<.001

Note: all predictors centered on their grand mean. International $M = 10$; $SD = 2$ for the outcome.

Table 6

Summary of Hierarchical Linear Model Predicting Support for Immigrants' Rights in CIVED:99 (Main Effects Only)

Fixed Effect	Coefficient	Standard Error	T-ratio	Approx. d.f.	P-value
Intercept	10.06	0.09	109.70	27	<0.01
Civic Participation	0.01	0.01	0.53	52645	0.59
Arts Participation	**0.10**	**0.03**	**3.15**	**52645**	**<0.01**
Language at Home	-0.07	0.03	-2.09	52645	0.04
Home Literacy Resources	0.03	0.01	1.91	52645	0.06
Expectations of Further Education	0.16	0.02	6.36	52645	<0.01
Parental Education	0.03	0.02	1.32	52645	0.19
Female	0.47	0.05	9.53	52645	<0.01
Immigrant Status	0.52	0.10	5.44	52645	<0.01
	SD	Variance	df	Chi-Square	P value
Level-1 Variance	1.81	3.28			
Level-2 Variance	0.47	0.22	4079	8152.61	<.001
Level-3 Variance	0.48	0.23	27	1815.03	<.001

Note: all predictors centered on their grand mean. International $M = 10$; $SD = 2$ for the outcome.

Table 7

Summary of Hierarchical Linear Model Predicting Support for Racial/Ethnic Minority Rights in CIVED:99 (Main Effects Only)

Fixed Effect	Coefficient	Standard Error	T-ratio	Approx. d.f.	P-value
Intercept	10.06	0.08	119.72	27	0.00
Organizational Membership	0.04	0.03	1.30	52645	0.19
Arts Participation	**0.07**	**0.03**	**2.58**	**52645**	**0.01**
Language at Home	-0.01	0.02	-0.59	52645	0.56
Home Literacy Resources	0.03	0.02	1.66	52645	0.10
Expectations of Further Education	0.07	0.02	3.36	52645	0.00
Parental Education	0.03	0.02	1.53	52645	0.13
Female	0.22	0.07	3.10	52645	0.00
Immigrant Status	0.07	0.09	0.81	52645	0.42
	SD	Variance	df	Chi-Square	P value
Level-1 Variance	1.88	3.52			
Level-2 Variance	0.45	0.20	4079	7537.23	<.001
Level-3 Variance	0.44	0.19	27	1581.83	<.001

Note: All predictors centered on their grand mean. International $M = 10$; $SD = 2$ for the outcome.

Differential prediction by individual background. In models were arts participation was a statistically significant predictor of civic attitudes, we tested to see whether arts participation was a stronger predictor of attitudes for certain students. In these analyses, we included the interactions of demographic characteristics with both overall organizational membership and with arts participation specifically, in order to further isolate the interaction of demographic predictors with arts participation specifically. Complete versions of these models with all interactions are included in Appendix A.

There were no statistically significant interactions between arts participation and demographic characteristics in predicting support for women's rights. For support for immigrants' rights, there was a statistically significant interaction between gender and arts participation, b (s.e.) = -0.13 (0.04), t (52,633) = -2.89, p = .004. This suggests that the gender

gap in support for immigrants' rights is less strong for arts participants than for those who do not participate in the arts. A second interaction term suggests that the effect of speaking the language of the test at home on support for immigrants' rights is smaller for arts participants than for non-participants, b (s.e.) = -0.05 (0.02), t (52,633) = -2.79, p = 0.006. This suggests that negative main effect of language spoken at home on support for immigrants' rights (see Table 6) was driven primarily by those who were involved in the arts.

Turning to attitudes toward racial/ethnic minorities, there was a statistically significant interaction between expectations of further education and arts participation, b (s.e.) = 0.05 (0.02), t(52,633) = 2.096, p = 0.036. This indicates that the effect of strong expectations for further education on supporting racial/ethnic minorities is especially pronounced among arts participants. There was also a statistically significant interaction between home literacy resources and arts participation, b (s.e.) = 0.08 (0.03), t(52,633) = 2.714, p = 0.007; however, this variation is around a non-significant main effect of home literacy resources on support for ethnic minority rights (see Table 7).

Results: ICCS

Predicting civic outcomes. Because there were two categories of arts participation in the ICCS:09 study to compare to non-participants, we include two indicators in models using this dataset. The "ever involved in the arts" indicator compares those who were currently or formerly involved in arts to those who were never involved in the arts, while the "currently involved" indicator represents the additional effect, over and above any arts participation, of having participated in the past 12 months. This means that the total effect of participating in the arts in the past 12 months can be calculated by considering both indicators together.

Arts participation had a unique effect over and above general civic participation in school and relevant demographic characteristics on three outcomes. First, individuals who participated in arts activities within the past year were most trusting. The effect of being *currently* involved in the arts was significant but small (associated with a .02 SD change in trust), while the more general effect of arts participation at any point in the past was not significant.

Table 8

Summary of Hierarchical Linear Model Predicting Trust in ICCS:09 (Main Effects Only)

Fixed Effect	Coefficient	Standard Error	T-ratio	Approx. d.f.	P-value
Intercept	50.27	0.53	95.08	37	<0.01
Civic Participation at School	0.85	0.07	11.51	119837	<0.01
Current Arts Participation	**0.24**	**0.08**	**2.89**	**119837**	**<0.01**
Any Arts Participation	**0.12**	**0.10**	**1.14**	**119837**	**0.25**
Speak Language of Test at Home	0.28	0.33	0.85	119837	0.39
Expected Years of Further Education	0.11	0.07	1.56	119837	0.12
Parental Education	-0.04	0.07	-0.50	119837	0.62
Home Literacy Resources	-0.15	0.09	-1.76	119837	0.08
Gender	-0.38	0.19	-2.00	119837	0.05
Non-Native Status	-0.38	0.35	-1.10	119837	0.27
	SD	Variance	df	Chi-Square	P value
Level-1 Variance	9.02	81.37			
Level-2 Variance	2.19	4.80	5322	12992.75	<.001
Level-3 Variance	3.21	10.33	37	6219.52	<.001

Note: all predictors centered on their grand mean. International $M = 50$, $SD = 10$ for the outcome.

Second, individuals who participated in the arts reported stronger intentions of future participation in two categories of civic activities: legal protest and informal political participation. In each case, the significant differences were between those who had never participated in the arts and those who had participated in the arts at some point in their life (whether within the past year or more than a year ago). These effects were small, with a .04 SD

effect of any arts participation for expectations of legal protest and a .02 SD effect of any arts participation for expectations of informal participation. This effect was not similarly observed in expectations of more conventional forms of civic participation (e.g., formal political participation or voting).

Table 9

Summary of Hierarchical Linear Model Predicting Legal Protest in ICCS:09 (Main Effects Only)

Fixed Effect	Coefficient	Standard Error	T-ratio	Approx. d.f.	P-value
Intercept	49.98	0.41	123.14	37	<0.01
Civic Participation at School	1.94	0.10	19.23	119837	<0.01
Current Arts Participation	**0.15**	**0.12**	**1.30**	**119837**	**0.19**
Any Arts Participation	**0.42**	**0.10**	**4.31**	**119837**	**<0.01**
Speak Language of Test at Home	0.00	0.19	0.01	119837	0.99
Expected Years of Further Education	0.44	0.08	5.40	119837	<0.01
Parental Education	0.06	0.06	1.04	119837	0.30
Home Literacy Resources	0.82	0.06	13.22	119837	<0.01
Gender	-0.21	0.28	-0.76	119837	0.45
Immigrant Status	0.01	0.19	0.06	119837	0.96
	SD	Variance	df	Chi-Square	P value
Level-1 Variance	9.23	85.24			
Level-2 Variance	1.46	2.15	5322	9140.68	<.001
Level-3 Variance	2.51	6.29	37	5616.19	<.001

Note: all predictors centered on their grand mean. *Note:* all predictors centered on their grand mean. International $M = 50$, $SD = 10$ for the outcome.

Table 10

Summary of Hierarchical Linear Model Predicting Informal Civic Participation in ICCS:09 (Main Effects Only)

Fixed Effect	Coefficient	Standard Error	T-ratio	Approx. d.f.	P-value
Intercept	50.08	0.48	105.26	37	<0.01
Civic Participation at School	2.05	0.08	24.14	119837	<0.01
Current Arts Participation	**0.00**	**0.10**	**-0.02**	**119837**	**0.99**
Any Arts Participation	**0.26**	**0.12**	**2.25**	**119837**	**0.02**
Speak Language of Test at Home	-0.33	0.27	-1.21	119837	0.23
Expectations for Further Education	0.31	0.07	4.34	119837	<0.01
Parental Education	0.03	0.08	0.32	119837	0.75
Home Literacy Resources	0.58	0.07	8.83	119837	<0.01
Gender	-0.76	0.17	-4.44	119837	<0.01
Immigrant Status	0.93	0.16	5.68	119837	<0.01
	SD	Variance	df	Chi-Square	P value
Level-1 Variance	9.09	82.63			
Level-2 Variance	1.49	2.23	5322	9319.24	<.001
Level-3 Variance	2.96	8.74	37	7830.73	<.001

Note: all predictors centered on their grand mean. *Note:* all predictors centered on their grand mean. International $M = 50$, $SD = 10$ for the outcome.

Unlike what was found looking at overall organizational membership participation in the CIVED (1999) data, there were also no effects of arts participation on attitudes toward women, immigrants, or ethnic minority groups.

Differential prediction by individual background. Appendix B includes full models with all interactions for the three outcomes demonstrating significant associations to arts participation. There were statistically significant interactions between demographic variables and arts indicators for all three of the observed outcomes. Turning first to trust, there was a significant interaction between having any history of arts participation and home literacy resources, b (s.e.) = 0.22 (0.10), $t(119{,}819) = 2.21$, $p = .027$. While this indicates that the effect of home literacy resources on institutional trust is stronger for those with some history of arts

participation, the fact that neither of the main effects are significant predictors of trust before adding the interaction (see Table 8) suggests that this variability is negligible in its level of importance. The same pattern (significant interaction without significant main effects) can be found when examining the interactive effects of language spoken at home and current arts participation on legal protest, b (s.e.) = 0.72 (0.27), $t(119{,}819) = 2.65$, $p = .008$. However, compared to those without a history of arts participation, having some form of arts training strengths the relation between home literacy to expectations of informal political participation. While both having some history of arts training and home literacy have significant main effects on informal political participation, the interactive effect strengthens these associations.

Comparing Countries

The final analyses provide a preliminary description of cross-national variation in the effect of arts participation on civic outcomes. Table 11 reports the partial correlations between arts participation and the three outcomes highlighted above in the CIVED:99 data while controlling for overall organizational membership. Table 12 reports the partial correlations between arts participation and the three outcomes highlighted for the ICCS:09 data, while controlling for civic participation at school.

Table 11

Summary of Partial Correlations between Arts Participation and Civic Outcomes by Country in CIVED:99.

	Support for Ethnic Minorities		Support for Women's Rights		Support for Immigrants' Rights	
Country	Partial *r*	Rank	Partial *r*	Rank	Partial *r*	Rank
Australia	.059	8	.101	17	.065	10
Belgium (French)	.129	1	.203	2	.085	6
Bulgaria	.059	7	.100	18	.067	9
Chile	.024	12	.073	26	.039	17
Colombia	.037	10	.039	27	.023	22
Cyprus	.008	18	.126	14	.041	16
Czech Republic	.121	2	.187	4	.133	1
Denmark	.022	13	.165	7	.118	2
Estonia	-.029	26	.229	1	-.001	26
Finland	-.021	25	.168	6	.101	4
Germany	.007	20	.157	8	.076	7
Greece	.008	19	.132	13	.070	8
Hong Kong, SAR	.015	16	.091	21	.033	19
Hungary	.017	15	.146	11	.061	11
Italy	.042	9	.077	25	.060	12
Latvia	-.006	23	.152	10	-.015	28
Lithuania	-.037	27	.174	5	.038	18
Norway	-.042	28	.138	12	.059	13
Poland	.003	22	.106	16	.045	15
Portugal	.005	21	.090	23	.026	21
Romania	-.007	24	.092	20	.021	23
Russian Federation	.029	11	.029	28	.011	25
Slovak Republic	.013	17	.091	22	.028	20
Slovenia	.063	5	.153	9	.100	5
Sweden	.084	4	.192	3	.117	3
Switzerland	.019	14	.121	15	-.011	27
United Kingdom	.062	6	.096	19	.015	24
United States	.087	3	.081	24	.054	14

Table 12

Summary of Partial Correlations between Arts Participation and Civic Outcomes by Country in ICCS:09

	Trust		Legal Protest		Informal Participation	
	Partial *r*	Rank	Partial *r*	Rank	Partial *r*	Rank
Austria	0.03	8	0.04	14	0.01	21
Belgium (Flemish)	0.04	2	0.01	27	0.05	3
Bulgaria	0.02	14	0.01	25	-0.02	32
Chile	0.03	7	0.02	22	0.02	18
Chinese Taipei	0.00	24	0.00	33	0.01	23
Colombia	0.00	27	0.01	23	-0.02	33
Cyprus	-0.02	33	0.03	20	0.01	24
Czech Republic	0.03	5	0.05	6	0.03	10
Denmark	0.00	20	0.05	7	0.03	8
Dominican Republic	-0.02	34	-0.03	38	-0.02	34
England	0.02	15	0.05	9	0.03	7
Estonia	0.03	3	0.01	28	0.00	26
Finland	0.03	4	0.10	1	0.07	1
Greece	0.02	12	0.03	16	0.01	19
Guatemala	0.01	17	0.00	31	-0.03	37
Hong Kong, SAR	-0.01	31	0.03	19	0.00	27
Indonesia	-0.03	37	0.01	29	0.01	22
Ireland	0.02	10	0.08	2	0.04	6
Italy	0.00	23	0.03	18	0.02	15
Korea, Republic of	0.02	13	0.04	10	0.01	20
Latvia	0.00	25	0.05	8	0.01	25
Liechtenstein	0.07	1	0.01	26	0.02	14
Lithuania	-0.03	38	0.04	11	0.03	13
Luxembourg	0.03	9	0.04	15	0.02	16
Malta	0.00	19	0.00	34	-0.06	38
Mexico	-0.02	35	0.00	32	-0.02	35
Netherlands	0.00	22	-0.03	37	0.00	28
New Zealand	0.01	16	0.07	4	0.05	4
Norway	-0.01	29	-0.01	35	0.03	9
Paraguay	-0.02	36	-0.02	36	-0.03	36
Poland	0.03	6	0.03	21	-0.01	30
Russian Federation	0.00	21	0.04	13	0.03	12
Slovak Republic	0.00	28	0.03	17	-0.01	31
Slovenia	0.02	11	0.04	12	0.02	17
Spain	0.00	18	0.01	30	0.03	11
Sweden	-0.01	32	0.08	3	0.04	5
Switzerland	-0.01	30	0.06	5	0.07	2
Thailand	0.00	26	0.01	24	-0.01	29

In each case, the observed correlations vary across countries, with some countries demonstrating a moderately-sized effect and others demonstrating small or even negligible effects. The rank-order of correlations tends to vary from outcome to outcome. However, there are a couple of countries that stand out as being relatively consistent in their rankings. In CIVED:99, the Czech Republic and (to a lesser extent) French-Speaking Belgium have consistently strong correlations, while Portugal has consistently weak correlations. In ICCS:09, Finland has somewhat consistently strong correlations across the three outcomes, while Latin American countries of Mexico and Paraguay have consistently small (and, even, slightly negative) correlations between arts participation and civic engagement.

Conclusions Related to Predicting Civic Outcomes

Overall, the effect of arts participation on civic engagement (controlling for other forms of current civic participation through youth organizations or in the school) appear to vary greatly between the CIVED:99 and ICCS:09 studies. In CIVED:99, when membership in other youth organizations was controlled for, arts participation had a unique effect on support for the rights of marginalized groups such as women, racial/ethnic minority groups, and immigrants. In ICCS:09, when various forms of civic participation in school were controlled for, unique effects were found instead for trust and for expectations of participation. Given the many differences in the student survey between the CIVED:99 and ICCS:09 studies, as well as differences in countries examined, it is challenging to pinpoint a specific reason for the differences in these findings. Given the differences between the content of the organizational membership (CIVED:99) and civic participation at school (ICCS:09) scales of which the arts items are part, it could indicate that the uniqueness of arts is dependent on what else is measured. The organizational participation scale created from CIVED:99, which was not on its own related to

attitudes toward marginalized groups, assigns higher scores to those who are involved in more activities. These analyses may indicate that participation in specific activities designed to encourage teamwork and introduce students to diverse perspectives is more important than participation in a large number of organizations for this purpose. To contrast, the civic participation at school variable includes some indicators that are not indicative of organizational membership, such as participating in debates or voting for representatives. It could be that arts organizations have a unique effect on social trust and expectations of social participation because they, unlike other school-based civic activities, provide activities for students to work in groups, cooperatively, toward a common goal. It could also be, however, that the difference reflects changes in attitudes and expectations of civic participation over the course of the first decade of the 21st century. There was more dramatic variability in attitudes toward marginalized groups in many countries in 1999 compared to 2009 (Barber & Ross, 2017), and the presence of differences in attitudes by arts participation in 1999 but not 2009 may be further indicative of this.

These analyses also suggest that the effects of arts participation vary across demographic groups and national contexts. The finding that gender gaps are smaller for arts participants (due to more positive attitude for male students) echoes previous research suggesting that empowering social contexts have an especially strong effect on male students' attitudes (Barber & Torney-Purta, 2009). Further, the stronger effect of home language on immigrant attitudes for arts participants compared to non-participants may suggest that participants who come from linguistically-diverse backgrounds themselves feel especially empowered by their participation (see Torney-Purta, Barber, & Wilkenfeld, 2007, for a similar discussion of immigrant attitudes among Latino youth). Although this model controlled for immigrant status, language status may

be indicative of membership in a non-dominant culture within a country (and could be indicative of a student having immigrant parents). The stronger effects of certain indicators of educational background on participatory outcomes in ICCS:09, however, also indicates that some of the benefits of the arts may be felt strongest by those who are already most likely to be civically engaged. Thus, some attention may need to be paid to ensure that the arts are not reproducing existing inequities in civic participation.

General Conclusions

In sum, the analyses above illustrate that, while youth arts organizations can be considered as a form of organizational membership alongside activities more traditionally associated with young people's civic development, they are also unique from other organizations in important ways. Arts participants were especially likely to be female, suggesting that such organizations may provide particular opportunities for young women to gain skills and dispositions necessary for participating in civic life. However, arts participants were also likely to be from more resourced backgrounds, which may indicate some financial or cultural barriers toward more widespread participation that are worthy of closer consideration by researchers and practitioners alike. Arts participation also uniquely related to several civic outcomes. Specifically, participating in the arts had a unique effect over a general indicator of organizational participation on support for the rights of marginalized social groups, and a unique effect over other forms of school involvement on trust and expected participation in informal, prosocial civic activities. The exact strength of these associations vary by personal background characteristics and by national contexts, suggesting the need of additional research to further explore the situations in which arts participation may be best able to support young people's civic development.

The ability to employ sophisticated measurement techniques, complex multilevel models, and cross-national analyses to address the questions above was aided by the use of data from large-scale, cross-national surveys. Specifically, the CIVED:99 and ICCS:09 data are unique in that they provide a vast array of variables capturing students' current levels of participation and their attitudes toward future participation and toward society at large. This allowed us to consider many variables which, along with arts participation, could be used to make a scale of voluntary civic action in community and/or school contexts, and gave us many civic competencies to consider as outcomes of such participation. Further, the use of large, nationally representative samples strengthens the generalizability of findings across the countries studied, and provides an adequate sample size to support the development of sophisticated measurement models supporting the proposed scales. There are, however, also some limitations to the data sources identified for use in this study. The most major limitation pertains specifically to the types of arts-related variables in CIVED:99 and ICCS:09. In CIVED:99 the arts-related variable included combines participation in music, drama, and arts organizations into a single variable; similarly, ICCS:09 combines drama and music participation into a single item. Therefore, there is no way of further exploring whether there are unique effects of specific types of arts participation on various forms of civic action. Further, there is no detail on the depth of involvement in such activities; the focus is only on whether participation did or did not occur (and, in ICCS:09, whether the participation occurred within the past year). More detailed work on the type and depth of activity membership would be useful and logical areas of future research. Further, given the importance of adult mentors and teachers in youth development, additional researchers on the role of music teachers in fostering civic outcomes is also needed. The CIVED:99 and ICCS:09 studies include teacher surveys, but arts instructors are not the focus of this work.

Researchers interested specifically in implications for the United States may also see some additional limitations, as the United States participated in CIVED:99 but not in ICCS:09. This means that the only data available for the United States are over fifteen years old. While caution must be taken in generalizing findings to present-day contexts, there is still much to be learned from this analysis. First, it is possible that the methodological conclusions to be drawn from these data are less dependent on current policy contexts. Second, the findings from CIVED:99 may inform readers about how previous arts participation shaped the development of civic competencies that provide the basis for how these young adults behave as citizens with full rights and responsibilities (Hooghe & Wilkenfeld, 2008). Third, U.S. audiences can still gain insight into the role of arts involvement in civic action by comparing and contrasting their context to those found in other countries. The inclusion of the United States in CIVED:99 illustrates how the country has compared to others at that time, and the ICCS:09 data illustrates what has changed (or stayed the same) in the world at large since then. The U.S. Department of Education's (2012) first international strategy articulated the importance of civic and global awareness for national and global security and of civil discourse in an increasingly diverse U.S. society. One of the three objectives outlined in this strategy is to learn from other countries to "drive excellence and innovation in the U.S. and abroad" (p. 8) through participation in international studies. Although the United States did not participate in ICCS:09, researchers may use these analyses "learn from other countries" in developing an engaged citizenry. We are planning to conduct additional analyses of these data comparing and contrasting models developed in single countries (including the U.S. sample in CIVED:99), which will be useful in providing more in-depth information for this purpose.

Overall, these findings suggest that researchers interested in the impact of arts programs on civic development may benefit from considering such participation in the broader context of a student's participation in community- or school-based activities. At the same time, this work illustrates to developmental psychologists interested in youth civic engagement the importance of considering the civic benefits of membership in organizations beyond the traditional student councils and voluntary organizations that are traditionally of focus.

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Appendix A: Models for Research Question 3b with All Tested Interactions: CIVED

Full Model Predicting Support for Immigrants' Rights:

Fixed Effect	Coefficient	Standard Error	T-ratio	Approx. d.f.	P-value
Intercept	10.06	0.09	109.83	27	<0.01
Civic Participation	-0.02	0.02	-1.01	52633	0.32
Arts Participation	0.18	0.04	4.92	52633	<0.01
Language of Test at Home	-0.05	0.03	-1.52	52633	0.13
Home Literacy Resources	0.03	0.02	1.30	52633	0.20
Expectations of Further Education	0.16	0.03	5.08	52633	<0.01
Parental Education	0.01	0.02	0.32	52633	0.75
Female	0.52	0.05	10.10	52633	<0.01
Immigrant Status	0.53	0.11	5.01	52633	<0.01
Civic Participation * Gender	0.06	0.03	2.19	52633	0.03
Arts * Gender	-0.13	0.04	-2.89	52633	<0.01
Civic Participation * Immigrant	0.03	0.05	0.64	52633	0.52
Arts * Immigrant Status	-0.03	0.12	-0.29	52633	0.78
Civic Participation * Language of Test	0.01	0.01	1.06	52633	0.29
Arts * Language of Test	-0.05	0.02	-2.79	52633	0.01
Civic Participation * Literacy Resources	0.02	0.01	1.97	52633	0.05
Arts * Home Literacy	0.00	0.03	0.08	52633	0.94
Civic Participation * Further Education	0.00	0.02	-0.11	52633	0.92
Arts * Further Education	0.00	0.03	-0.09	52633	0.93
Civic Participation * Parental Education	0.00	0.02	-0.01	52633	0.99
Arts * Parental Education	0.04	0.02	1.80	52633	0.07

	SD	Variance	df	Chi-Square	P value
Level-1 Variance	1.81	3.27			
Level-2 Variance	0.47	0.22	4079	8157.25	<.001
Level-3 Variance	0.48	0.23	27	1808.74	<.001

Full Model Predicting Support for Racial/Ethnic Minorities:

Fixed Effect	Coefficient	Standard Error	T-ratio	Approx. d.f.	P-value
Intercept	10.06	0.08	121.35	27	<0.01
Civic Participation	0.00	0.03	0.04	52633	0.97
Arts Participation	0.06	0.04	1.54	52633	0.12
Language of Test at Home	-0.01	0.02	-0.33	52633	0.74
Home Literacy Resources	0.00	0.02	0.11	52633	0.91
Expectations of Further Education	0.06	0.02	2.41	52633	0.02
Parental Education	0.05	0.02	2.24	52633	0.03
Female	0.22	0.07	3.12	52633	<0.01
Immigrant Status	0.09	0.10	0.93	52633	0.35
Civic Participation * Gender	0.09	0.06	1.67	52633	0.10
Arts * Gender	-0.01	0.05	-0.25	52633	0.80
Civic Participation * Immigrant	-0.07	0.06	-1.13	52633	0.26
Arts * Immigrant Status	0.00	0.09	0.04	52633	0.97
Civic Participation * Language of Test	0.03	0.01	2.19	52633	0.03
Arts * Language of Test	-0.01	0.02	-0.46	52633	0.65
Civic Participation * Literacy Resources	-0.01	0.02	-0.70	52633	0.48
Arts * Home Literacy	0.08	0.03	2.71	52633	0.01
Civic Participation * Further Education	0.00	0.01	0.28	52633	0.78
Arts * Further Education	0.05	0.02	2.10	52633	0.04
Civic Participation * Parental Education	0.06	0.02	3.27	52633	<0.01
Arts * Parental Education	-0.05	0.03	-1.59	52633	0.11

	SD	Variance	df	Chi-Square	P value
Level-1 Variance	1.88	3.52			
Level-2 Variance	0.44	0.19	4079	7452.56	<.001
Level-3 Variance	0.43	0.19	27	1594.65	<.001

Appendix B: Models for Research Question 3b with All Tested Interactions: ICCS

Full Model Predicting Trust

Fixed Effect	Coefficient	Standard Error	T-ratio	Approx. d.f.	P-value
Intercept	50.28	0.53	95.42	37	<0.01
Civic Participation at School	0.76	0.26	2.91	119819	<0.01
Current Arts Participation	0.31	0.35	0.89	119819	0.37
Any Arts Participation	0.32	0.36	0.90	119819	0.37
Language of Test	0.43	0.29	1.47	119819	0.14
Expectations of Further Education	0.11	0.10	1.14	119819	0.26
Parental Education	-0.08	0.09	-0.84	119819	0.40
Home Literacy Resources	-0.23	0.11	-1.99	119819	0.05
Gender	-0.31	0.22	-1.43	119819	0.15
Non-Native Status	-0.33	0.43	-0.77	119819	0.44
Language of Test * Current Arts	-0.01	0.32	-0.04	119819	0.97
Language of Test * Any Arts	-0.24	0.35	-0.67	119819	0.50
Language of Test * Civic Participation	0.25	0.24	1.04	119819	0.30
Expected Education * Current Arts	-0.06	0.10	-0.55	119819	0.58
Expected Education * Ever Arts	0.01	0.12	0.05	119819	0.96
Expected Education * Civic Participation	-0.15	0.05	-2.69	119819	0.01
Parent Education * Current Arts	0.13	0.08	1.75	119819	0.08
Parent Education * Ever Arts	0.00	0.10	0.04	119819	0.97
Parent Education * Civic Participation at School	-0.03	0.05	-0.50	119819	0.62
Home Literacy * Current Arts	-0.18	0.10	-1.78	119819	0.07
Home Literacy * Any Arts	0.23	0.10	2.21	119819	0.03
Home Literacy * Civic Participation at School	-0.17	0.06	-2.86	119819	0.01
Gender * Current Arts	0.04	0.18	0.23	119819	0.82
Gender * Any Arts	-0.11	0.15	-0.72	119819	0.47
Gender * Civic Participation	-0.31	0.13	-2.36	119819	0.02
Non-Native * Current Arts	-0.34	0.35	-0.96	119819	0.34
Non-Native * Any Arts	0.10	0.33	0.31	119819	0.76
Non-Native * Civic Participation	0.20	0.20	1.00	119819	0.32

	SD	Variance	df	Chi-Square	P value
Level-1 Variance	9.02	81.28			
Level-2 Variance	2.18	4.77	5322	12958.73	<.001
Level-3 Variance	3.20	10.25	37	6203.12	<.001

Full Model Predicting Legal Protest:

Fixed Effect	Coefficient	Standard Error	T-ratio	Approx. d.f.	P-value
Intercept	49.98	0.41	123.29	37	<0.01
Civic Participation at School	1.49	0.22	6.84	119819	<0.01
Current Arts Participation	-0.40	0.29	-1.37	119819	0.17
Any Arts Participation	0.92	0.32	2.90	119819	<0.01
Language of Test	0.13	0.29	0.46	119819	0.64
Expectations of Further Education	0.47	0.08	5.58	119819	<0.01
Parental Education	-0.03	0.09	-0.40	119819	0.69
Home Literacy Resources	0.77	0.09	8.09	119819	<0.01
Gender	-0.15	0.31	-0.48	119819	0.63
Non-Native Status	-0.16	0.35	-0.45	119819	0.65
Language of Test * Current Arts	0.72	0.27	2.65	119819	0.01
Language of Test * Any Arts	-0.57	0.30	-1.87	119819	0.06
Language of Test * Civic Participation	0.53	0.21	2.49	119819	0.01
Expected Education * Current Arts	-0.03	0.10	-0.33	119819	0.74
Expected Education * Ever Arts	-0.04	0.11	-0.33	119819	0.75
Expected Education * Civic Participation	-0.01	0.07	-0.10	119819	0.92
Parent Education * Current Arts	0.11	0.11	0.96	119819	0.34
Parent Education * Ever Arts	0.11	0.11	1.00	119819	0.32
Parent Education * Civic Participation at School	-0.02	0.05	-0.41	119819	0.68
Home Literacy * Current Arts	0.06	0.11	0.53	119819	0.59
Home Literacy * Any Arts	0.05	0.11	0.51	119819	0.61
Home Literacy * Civic Participation at School	0.02	0.07	0.23	119819	0.82
Gender * Current Arts	-0.19	0.21	-0.87	119819	0.38
Gender * Any Arts	-0.03	0.17	-0.19	119819	0.85
Gender * Civic Participation	-0.06	0.11	-0.60	119819	0.55
Non-Native * Current Arts	0.36	0.38	0.95	119819	0.34
Non-Native * Any Arts	0.11	0.38	0.30	119819	0.76
Non-Native * Civic Participation	0.15	0.29	0.52	119819	0.61

	SD	Variance	df	Chi-Square	P value
Level-1 Variance	9.23	85.19			
Level-2 Variance	1.46	2.15	5322	9139.53	<.001
Level-3 Variance	2.51	6.29	37	5618.39	<.001

Full Model Predicting Informal Political Participation:

Fixed Effect	Coefficient	Standard Error	T-ratio	Approx. d.f.	P-value
Intercept	50.08	0.48	104.62	37	<0.01
Civic Participation at School	1.63	0.18	9.13	119819	<0.01
Current Arts Participation	-0.25	0.31	-0.79	119819	0.43
Any Arts Participation	0.62	0.31	1.97	119819	0.05
Language of Test	-0.22	0.28	-0.77	119819	0.44
Expectations of Further Education	0.32	0.07	4.50	119819	<0.01
Parental Education	0.09	0.11	0.79	119819	0.43
Home Literacy Resources	0.45	0.11	4.13	119819	<0.01
Gender	-0.67	0.21	-3.22	119819	<0.01
Non-Native Status	0.87	0.29	2.99	119819	<0.01
Language of Test * Current Arts	0.31	0.30	1.03	119819	0.31
Language of Test * Any Arts	-0.33	0.30	-1.09	119819	0.28
Language of Test * Civic Participation	0.49	0.18	2.79	119819	0.01
Expected Education * Current Arts	-0.06	0.09	-0.67	119819	0.50
Expected Education * Ever Arts	0.04	0.12	0.30	119819	0.76
Expected Education * Civic Participation	0.08	0.06	1.33	119819	0.18
Parent Education * Current Arts	0.14	0.10	1.45	119819	0.15
Parent Education * Ever Arts	-0.17	0.11	-1.58	119819	0.12
Parent Education * Civic Participation at School	0.00	0.07	0.04	119819	0.97
Home Literacy * Current Arts	-0.04	0.10	-0.40	119819	0.69
Home Literacy * Any Arts	0.24	0.11	2.14	119819	0.03
Home Literacy * Civic Participation at School	0.10	0.06	1.75	119819	0.08
Gender * Current Arts	-0.04	0.14	-0.26	119819	0.80
Gender * Any Arts	-0.14	0.17	-0.84	119819	0.40
Gender * Civic Participation	-0.04	0.09	-0.46	119819	0.64
Non-Native * Current Arts	-0.19	0.35	-0.54	119819	0.59
Non-Native * Any Arts	0.18	0.34	0.52	119819	0.60
Non-Native * Civic Participation	0.12	0.15	0.78	119819	0.44

	SD	Variance	df	Chi-Square	P value
Level-1 Variance	9.09	82.56			
Level-2 Variance	1.50	2.24	5322	9329.84	<.001
Level-3 Variance	2.97	8.85	37	7922.93	<.001