Abstract Title Page
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Middle School Students Discussing Controversial Issues to Learn About Civic Engagement: A Randomized Evaluation of the Word Generation Program

Authors: Alex Lin, M.A. (University of California, Irvine), Joshua Lawrence, Ph.D. (University of California, Irvine), and Catherine Snow (Harvard Graduate School of Education)

Background / Context:
International reports on youths conducted by the World Bank (2007) report that *civic engagement* is one of the most important markers of adult transition, alongside school completion, attainment of health, employment, and family formation (Kassmir & Flanagan, 2010). In urban areas where ethnic minorities typically reside, there are often few institutions, aside from schools that provide them with opportunities to build and participate in communities with others (Hart, Atkins & Ford, 2010; Kirshner, Strobel & Fernandez, 2003). Past research indicate that civics interventions supplemented in social studies courses can enhance students' civic engagement, as indicated by interest in voting (Syvertsen et al., 2009), volunteering (Root, Northup, & Turnball, 2007), and engaging political discussions with parents (McDevitt & Chaffee, 2002). Although past research suggest that civic education programs can be effective in helping students become more civic engaged, this study tests whether these treatment effects are generalizable across an urban school district with multiple middle school sites. This study also contributes understanding of how treatment effects may vary for students from ethnic minority populations, in particular to those identified as Asians and Latino.

<INSERT FIGURE 1>

The theoretical framework that is tested in this study is the Structure-Stimulus-Orientation-Response model (S-S-O-R) model that hypothesizes the relationship between classroom discussion of controversial issues and civic engagement (McLeod, Scheufele, & Moy, 1999; Scheufele, Nisbet, Brossard, & Nisbet, 2003) In the model: (1) Schools represent heterogeneous networks meaning that adolescents have opportunities to interact with others who are unlike themselves because they may hold differing beliefs and opinions as opposed to homogenous networks (e.g. family, faith, peer-based networks). (2) The stimulus is adolescents' experience in discussing controversial issues in the classroom. Adolescents are exposed to other peoples' point of views. (3) The orientation that develops from the stimulus is Knowledge- Students develop a knowledge base in regards to understanding how these issue may pertain to their communities. Students may also increase their news media access (going online, reading the newspaper and watching television) to understand current events. (4) To address community problems, the response is civic engagement– which is participating in certain collective activities such as volunteering, discussing issues with peers outside of class and extracurricular activities.

Purpose / Objective / Research Question / Focus of Study:
The purpose of this study is to determine whether a cross-content intervention called Word Generation has a significant impact on students' self-reported civic engagement. Secondary analysis of this study consists of examining if treatment effects vary across students from ethnic minority backgrounds.

RQ 1: Does the Word Generation Program have a positive impact on students' self-reported civic engagement?

RQ 2: To what extent does students' ethnic identification (e.g. Latino and Asian) influence the direction and strength of the relationship between program participation and self-reported civic engagement?

Setting:
A school district located in a West Coast metropolitan area of the United States participated in an evaluation study of the Word Generation (WG) program. Once district leaders had been recruited, they invited their school level leadership teams to participate in the study. To be considered, teams had to accept the prospect of being randomly assigned either to implement the program the following fall ("phase 1 schools") or only after two years ("phase 2 schools").

Population / Participants / Subjects:

<INSERT TABLE 1 >

From Fall 2011 to Spring 2012, middle school students (N = 5,870) participated in a randomized study of the WG intervention that was conducted in an urban school district located in a West Coast metropolitan area of the United States. Although an equal number of schools were randomly assigned to treatment (n = 6) and control (n = 6) conditions, the sample contains more students who enrolled in treatment (n = 3,518) than control (n = 2,352) schools. Gender of the participants was approximately equally divided with males (50.30%) and females (49.70%). The sample consists of students from extremely diverse racial/ethnic backgrounds, which includes: Asian (54.1%), Hispanic (19.3%), White (8.6%), and African American (6.9%). As is typical in many American urban settings, a majority of the participants (63.8%) are from low SES homes (as indicated by eligibility status for the Free and Reduced Lunch program) and 56.8% are English language learners.

Intervention / Program / Practice:
The Word Generation (WG) is a cross-content program delivered at the classroom or grade level that instructs students to learn five all-purpose academic words, which are embedded in brief passages covering a different controversial issue each week (Snow, Lawrence, & White, 2009). The program features controversial topics that range from political to scientific-based controversies, such as whether the government should allow stem cell research or animal testing. As part of the WG program, teachers in the four main content areas – English language arts, social studies, science and math – present materials related to a controversial issue and explore academic language that is embedded in the curriculum through discourse and writing (Snow et al., 2009). For fifteen minutes a day, teachers and students engage in vocabulary instruction and/or classroom discussion

Research Design:.
As part of a two-year data collection effort conducted from Fall 2010 to Spring 2012, thirteen middle schools in an urban school district located in a West Coast metropolitan area of the United States participated in a randomized study of the Word Generation intervention. Before randomization occurred, state accountability data was used to rank schools on a number of school-level variables based on: ethnic minorities, low-income status, English language learners, and prior academic achievement. Propensity score matching was used to create a composite score from the school-level variables as a means of determining school rankings. To strengthen comparability of treatment and control school, each school was paired with another school based on closely matching composite scores. The school pairs were then randomized, which resulted in one more school assigned to the treatment condition (n = 7) in comparison with control condition

(n = 6). This study examines the second academic year (2011-2012) of the randomized trial, where all but one of the schools in the treatment group participated in our data collection. In turn, our sample consists of an equal number of schools randomly assigned to treatment (n = 6) and control conditions (n = 6).

Data Collection and Analysis:

Data Collection

Survey items were developed from a nationally recognized survey of civic measures designed for young people aged 12-18 years old that contains reliable psychometric properties on a broad range of civic measures including civic behavior, political efficacy, political conversation, and news media consumption (Flanagan, Syvertsen, & Stout, 2007). The survey items were also modified based on our results from cognitive lab interviews, where adolescents were asked to assess their understanding of civic engagement. We also piloted the survey items in a sample of seventh graders enrolled in the WG program and found reasonably high alpha reliabilities in the civic engagement measures (α =0.74- 0.81). The main dependent variables of interest are the following survey items:

Helping the poor and neighborhood. Students responded to the item, "How often do you help poor people in your city?" and answered on a five-point Likert scale of (1) *never*, (2) *rarely*, (3) *sometimes*, (4) *often*, and (5) *always*.

Helping the school. Students responded to the item, "How often do you help out at your school?" and answered to a five-point Likert scale of (1) *never*, (2) *rarely*, (3) *sometimes*, (4) *often*, and (5) *always*.

Helping friends. Students responded to the item, "How often do you help your friends?" and answered to a five-point Likert scale of (1) *never*, (2) *rarely*, (3) *sometimes*, (4) *often*, and (5) *always*.

These items were used to develop the civic engagement scale and have a reasonably good reliability (alpha = 0.60).

The school district also provided demographic data based on students' racial-ethnicity identity, gender, year in school, school status and academic ability.

Analysis

Multiple regression analyses were used to estimate the degree to which students' participation in the WG program is related to their self-reported civic engagement, while including relevant controls in the models. In the equation below:

$$
\begin{aligned}
CIVIC\ ENGAGEMENT_i = \quad & \beta_0 + \beta_1\, TREAT_i + \beta_2\, FEMALE_i \\
& + \beta_3\, GRADE\_7_i + \beta_4\, GRADE\_8_i + \beta_5\, ASIAN_i \\
& + \beta_6\, BLACK_i + \beta_7\, LATINO_i + \beta_8\, OTHER\_RACE_i \\
& + \beta_9\, FREE\_AND\_REDUCED\_LUNCH\_STATUS_i \\
& + \beta_0\, ENGLISH\_LANGUAGE\_LEARNER_i \\
& + \beta_{11}\, SPECIAL\_EDUCATION_i + \beta_{12}\, GATE_i \\
& + \beta_{13}\, POLITICAL\ EFFICACY_i \\
& + \beta_{14}\, ACADEMIC\ ABILITY_i + \varepsilon_i
\end{aligned}
$$

Findings / Results:

<INSERT TABLE 2>

Our multiple regression results provide support for the primary research question- participation in the Word Generation program has a significant impact on students' civic engagement, after accounting for other covariates ($TREAT = 0.069$, $p < 0.001$). The non-significance in the interaction terms also indicates that treatment effects are equal across Asian and Hispanics. These results support past research that explain the link between classroom discussion and civic engagement – students with opportunities to discuss social and political issues develop *civic identity* or the self-concept of envisioning oneself as an active participant in civic affairs (Youniss, McLellan, & Yates, 1997). Another possibility is that adolescents may be stimulated by classroom peer effects, where teachers serve as models of democratic and discursive behavior that can "pull" previously disengaged classmates to become more civically engaged (Campbell, 2008, *p.* 451).

Conclusions:

This study has important implications on policy and practice that are significant on two main fronts: (1) supporting discussions of controversial issues can help adolescents develop interest in serving the greater community and (2) addressing civic engagement gaps between ethnic minorities and mainstream students. Although this study has a number of important strengths that include the randomized design and comparison across multiple schools, there are several limitations to acknowledge. This study is limited by not having pre-test data, which allows for a more precise estimate of the treatment effect. Another limitation is that the analysis relies on student-reported assessments of civic engagement, which does not accurately reflect students' *actual* performance.

We plan to use Structural Equation Modeling (SEM) to test a communication mediation model of youth socialization, in which program effects may be indirectly working through informational use of news media and home discussions of politics (Lee, Shah, & McLeod, 2012). Also, we can test for treatment and follow-up effects by comparing sixth graders who received one year with seventh/eighth graders who received two years of the program.

Appendices

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Appendix A. References

References are to be in APA version 6 format.

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Appendix B. Tables and Figures
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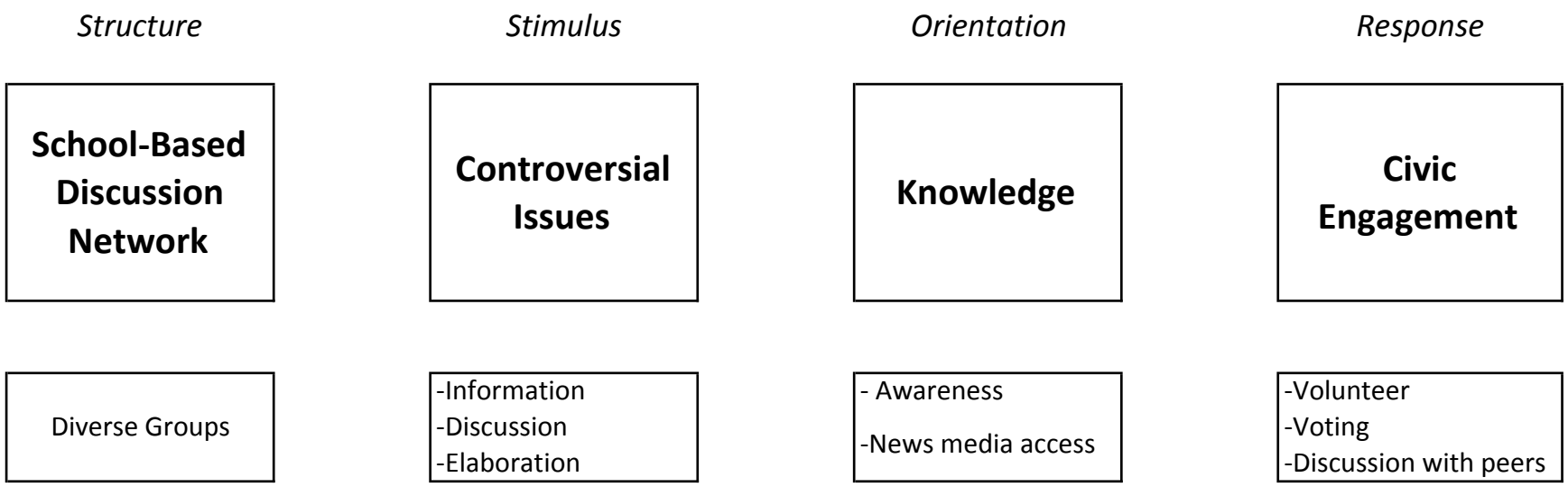

Figure 1. *The Structure-Stimulus-Orientation-Response model (S-S-O-R) model*

Table 1
Demographics of the Analytical Sample by Treatment Condition

	Control Schools		Word Generation Schools		All Schools	
	n	%	*n*	%	*N*	%
Female	968	50.0%	1,595	49.5%	2,563	49.7%
Special Education	175	9.0%	261	8.1%	436	8.5%
Free and Reduced Lunch Eligible	1,344	69.5%	1,944	60.4%	3,288	63.8%
English Language Learner	1,219	63.0%	1,710	53.1%	2,929	56.8%
Asian	1,115	57.6%	1,673	51.9%	2,788	54.1%
African-American	146	7.6%	209	6.5%	355	6.9%
Hispanic	397	20.5%	597	18.5%	994	19.3%
White	110	5.6%	332	10.3%	442	8.6%
Other	60	3.1%	160	4.9%	220	4.3%
Total Students	2,352	40.1%	3,518	59.9%	5,870	100.0%

Table 2

Regression Models Predicting Students' Self-Reported Civic Engagement Controlling for Students' Individual Characteristics with Standard Errors in Parentheses

	Without Covariates	With Covariates	Interactions
Treatment (*n* = 4,072)	0.065***	0.069***	0.083*
	(0.018)	(0.019)	(0.038)
Female (*n* = 3,217)		0.249***	0.249***
		(0.018)	(0.018)
Grade 7 (*n* = 2,444)		0.016	0.016
		(0.023)	(0.023)
Grade 8 (*n* = 2,512)		-0.030	-0.030
		(0.022)	(0.023)
FRL (*n* = 4,241)		-0.034	-0.033
		(0.021)	(0.021)
GATE (*n* = 3,425)		-0.042	-0.042
		(0.022)	(0.022)
ELL (*n* = 3,729)		-0.025	-0.025
		(0.022)	(0.022)
Special Education (*n* = 625)		-0.056	-0.056
		(0.054)	(0.054)
Asian (*n*= 3,457)		0.055	0.061
		(0.028)	(0.041)
Hispanic (*n* = 1,349)		-0.0701*	-0.040
		(0.034)	(0.049)
Black (*n* = 490)		0.082	0.084
		(0.045)	(0.045)
Other Ethnicity (*n* = 279)		0.129**	0.129**
		(0.050)	(0.050)
Political Interest		0.242***	0.242***
		(0.009)	(0.009)
Asian x Treatment			-0.008
			(0.045)
Hispanic x Treatment			-0.049
			(0.057)
Intercept	3.084***	2.323***	2.312***
	-0.014	-0.059	-0.063
N	6,244	4,968	4,968
R^2	0.002	0.176	0.175

Note. Standard errors in parentheses; Civic engagement is an aggreggate measure relating to students' reported frequency of helping their school, friend and poor people in their city on a Likert scale of 1 "rarely" to 5 "always"; ELL- Refers to English Language Learner status; FRL refers to free and reduced lunch status; GATE refers to District Gifted and Talented Education status; * $p < 0.05$, ** $p < 0.01$, *** $p < 0.00$.