Does School Participatory Budgeting Increase Students' Political Efficacy? Bandura's "Sources," Civic Pedagogy, and Education for Democracy

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Abstract

Does school participatory budgeting (SPB) increase students' political efficacy? SPB, which is implemented in thousands of schools around the world, is a democratic process of deliberation and decision-making in which students determine how to spend a portion of the school's budget. We examined the impact of SPB on political efficacy in one middle school in Arizona. Our participants' (n = 28) responses on survey items designed to measure self-perceived growth in political efficacy indicated a large effect size (Cohen's d = 1.46), suggesting that SPB is an effective approach to civic pedagogy, with promising prospects for developing students' political efficacy.

Keywords: Bandura, civic education, civic education gap, civic engagement, civic pedagogy, deliberative civic pedagogies, political efficacy, school participatory budgeting

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Introduction

The development of students' sense of political efficacy—their beliefs in their capacity to influence political decisions—has been a growing interest in the civic education literature over the past two decades (Bandura, 1997; Barber & Torney-Purta, 2009; Beaumont, 2011; Pasek et al., 2008; Piñgul, 2015; Schulz, 2005; Zaff et al., 2010). From this research has emerged a set of pedagogical practices aimed at the development of students' political efficacy (Westheimer & Kahne, 2004). This new breed of participatory and deliberative civic pedagogies incorporates experiential learning approaches such as service-learning, community action and school government, which have begun to shift the focus of traditional classroom-based civic education toward active learning, both in and out of the classroom (Gould et al., 2011; Guilfoile & Delander, 2014; Levine & Kawashima-Ginsberg, 2015, 2017).

In this paper, we employ a survey research methodology to analyze whether the implementation of "school participatory budgeting" (SPB) in one middle school in Arizona increased students' sense of political efficacy. At the time of this study, the school was in its third year of implementing SPB, a democratic process in which students are allocated control of a portion of the school budget. SPB is an offspring of municipal participatory budgeting (MPB), in which residents allocate a portion of a public budget. MPB started in Porto Alegre (Brazil) in 1989 and is implemented in thousands of cities and towns around the world.

In SPB, a school's student body is given responsibility for deciding how to spend a portion of the school's capital budget, and the students themselves create the democratic infrastructure to support that decision-making process—all with the goal of fostering students' political efficacy and eventual participation as adults in a democratic society. In Arizona, SPB began in one Phoenix school in 2013 (M. Cohen et al., 2015) and is currently being implemented in 40 schools in five cities, involving close to 50,000 students every year. In the SPB that we observed, the steering committee (31 students) represented the school's demographics, considering factors like age, gender, race/ethnicity and dis/ability.

We designed this study to understand better whether the use of deliberative and participatory student democracy (specifically, SPB) in schools increases students' sense of political efficacy. As such, we examined the following research question: *"To what extent does school participatory budgeting (SPB) moderate or strengthen the perceived political efficacy of students who participate on the steering committee?"* To date, very few studies have been conducted on the role of SPB as a mechanism for strengthening students' sense of political efficacy. Our study aims to contribute to addressing this gap in the literature.

Theoretical Framework

Bandura's Sources of Political Efficacy

Political efficacy, the belief in one's ability to achieve change within a political system, has been a focus of research on civic education for some time. The work of Bandura (1977, 1989, 1993, 1997, 2000, 2001), who describes political efficacy as containing both an internal dimension (the belief in one's own ability or the ability of one's group to influence a system) and an external dimension (one's belief in the system's openness to change), has been widely referenced within the field.

Bandura's internal political efficacy builds upon what he described as four "sources" of self-efficacy, to which he encouraged researchers to align their instruments (Bandura, 2006): (1) performance accomplishments, in which one depends on past experiences to predict future levels of comfort or success with a given task; (2) vicarious experience, in which one estimates their own capabilities by comparing themselves against others who succeed or fail; (3) verbal persuasion, in which one's self-efficacy is strengthened by the encouragement of other people believed to be credible; and (4) emotional states, in which one's underlying emotions amplify or contradict other sources of self-efficacy (Bandura, 1977, 1997).

In operationalizing Bandura's concept of external political efficacy in the context of youth, prior studies have used school climate as a proxy for external political efficacy (Schulz, 2005; Schulz & Sibberns, 2004), building on Bandura's hypothesis that students generalize from present school contexts to future civic contexts (Bandura, 1997; Bandura et al., 1975). As will be discussed below, we aligned our survey items to Bandura's four sources of internal efficacy and, following prior research, we mapped school climate to Bandura's concept of external political efficacy.

Collective Efficacy and the School Context

Building on this concept of personal efficacy—or the agentic belief that one is able to produce certain desired outcomes—Bandura's notion of collective efficacy is a form of personal efficacy in the aggregate, subject to the same sources as personal efficacy: it is the degree of confidence that the group to which one belongs can reach its goals successfully (Bandura, 1977, 1997, 2000, 2001, 2006). Collective efficacy is informed by similar sources to those that shape personal efficacy (e.g., as students collaborate to achieve initiatives in groups, their performance accomplishments strengthen an individual group member's level of confidence in their group's efficacy).

Within his taxonomy of self-efficacy, Bandura categorizes political efficacy as one variant of collective efficacy. He follows prior researchers in describing political efficacy as containing dimensions of both internal efficacy (one's belief in the ability of oneself and one's group to influence a system) and external political efficacy (what he describes as one's belief in the system's openness to change) (Bandura, 1997; cf., Balch, 1974; Coleman & Davis, 1976; Converse, 1972; Lane, 1965). As such, within Bandura's social cognitive theory of learning (Bandura, 1989, 2001), political efficacy builds upon personal self-efficacy's four sources and moderates that efficacy based on a scan of the sociological context (Morrell, 2005).

Measures that operationalize Bandura's definition consider both internal and external dimensions of political efficacy and seek to establish the strength of the four sources of self-efficacy (Bandura, 2006). In addition to the four sources, measures of political efficacy among youth also address the school climate as a proxy for external political efficacy. Following Bandura's theory that students generalize from present school contexts to future civic contexts (Bandura, 1997; Bandura et al., 1975), school climate has been found to have a positive correlation with students' expected electoral participation (Schulz, 2005; Schulz & Sibberns, 2004).

An additional complexity within the structure of political efficacy is that internal and external political efficacy interact in a dynamic relationship. In most cases, the correspondence between the two is positive, with Bandura noting the exception that, when individuals find their efforts consistently defeated by an environment resistant to change, their levels of internal efficacy will be correspondingly low (Bandura, 1997). However, the relationship may also be inverse, and there are instances in which low external political efficacy may prompt stronger

internal efficacy. This could happen when an unresponsive environment strengthens one's resolve to work hard and achieve the desired results (Kahne and Westheimer 2006).

Thus, as Bandura (1997) observes, political efficacy is contextually sensitive due to the interaction of one's internal political efficacy with the external political environment (cf., Gil de Zúñiga et al., 2017; Velasquez & LaRose, 2015). This theory aligns with Verba, Schlozman, and Brady's (1995) large-scale findings among 15,000 American adults. They found that individuals were more likely to engage in democratic processes given sufficient personal resources, including knowledge, time, and money (aligning partially with Bandura's performance accomplishments efficacy source), psychological interest (aligning with Bandura's psychological states efficacy source), and external encouragement (aligning with both external political efficacy and Bandura's verbal persuasion efficacy source). Within civic education, then, students' beliefs in their ability to change political systems around them depends on both their beliefs in their own personal efficacy—with its four source dimensions—and their interpretation of the openness of the system they aim to change.

In referencing "political efficacy," some authors have used the term "civic efficacy" synonymously, sometimes within a single study (e.g., Kahne & Westheimer, 2006). Others have chosen to insert "governmental efficacy" as a third type of efficacy, allowing "political efficacy" to refer more broadly to the individual's community and allowing "governmental efficacy" to refer more narrowly to governmental power structures within the community (Gil de Zúñiga et al., 2017). Notwithstanding these occasional taxonomic departures, the traditional definitions remain dominant within the literature, where political efficacy refers to people's belief in their own ability to effect changes within their community—including governmental structures—and their beliefs that the community provides individuals with the access and openness needed to allow them to voice their concerns and effect changes.

Literature Review

Variations of Participatory Budgeting: Youth PB and School PB

Participatory budgeting (PB) is a democratic process of deliberation and decision-making in which residents allocate a portion of a public budget. PB started in 1989 in the city of Porto Alegre (Brazil) and is currently implemented in over 11,500 cities around the world (Dias et al., 2019). In some countries—including South Korea, Poland, Portugal, Peru, Panama and the Dominican Republic—PB is mandated by federal laws. PB is considered a "school of democracy", in which people learn democracy by performing it. It also promotes more opportunities for participation and higher levels of transparency, accountability and effectiveness in municipal government (Schugurensky, 2006).

Prior studies have shown that PB has an impact on internal political efficacy—as it empowers participants and increases their civic engagement and PB participants can see the direct impact of their involvement—and also provides opportunities to build social capital and develop civic capacities (Curtis, 2020; Hagelskamp et al., 2018; Lerner & Secondo, 2012; Pinnington et al., 2009; Wampler, 2012). Participatory budgeting also has an impact on external political efficacy. Indeed, considering Arnstein's classic ladder of participation, PB is not just a consultation process or a tokenistic exercise; it is a "real" process that puts decision making power (that is, "real resources") in the hands of residents, and hence belongs to the Citizen Power rungs of the ladder (Arnstein, 1969). This is relevant to the development of external political efficacy because people are more likely to participate in civic life if they believe that their voices will be heard.

A particular variation of PB that is relevant to this study is youth PB, which has similar rules to municipal PB but has a focus on young people, who are usually underrepresented in municipal civic life and also in municipal PB processes. Prior evaluations of youth PB in different countries show that participants report social benefits, increased political knowledge and skills (e.g. leadership, teamwork, networking, communication, professionalism) and sense of political efficacy (Augsberger et al., 2017, 2019; Berretta et al., 2005; Brennan, 2016; Collins et al., 2018). Regarding political efficacy, Grillos (2014), examining the case of Boston in the United States, found that as a result of their involvement in youth PB, participants felt more confident in their abilities to make change and were more likely to contact a public official, to vote in local and/or national elections, to consider working in politics, to volunteer for community projects, and to work with others to solve community problems.

School participatory budgeting (SPB) is a more recent development. Inspired by research that identified PB as an effective model for prompting public deliberation and empowering citizens' voices (e.g., Dias, 2014, 2018), school leaders in countries like Brazil, France, Spain, the United States, Russia, Mexico, Peru and Portugal have implemented SPB as a component of civic pedagogy. The case of Portugal is atypical, because in that country SPB is implemented in every elementary and secondary school of the nation with support from the federal government (Dias & Júlio, 2018).

Because SPB is a recent phenomenon, the research literature about it is still incipient. A recent study (Albornoz-Manyoma et al., 2020) completed in Spain with 273 students in six schools (with three schools doing SPB and the other three in the control group) found that SPB favored positive interactions and improved the psychological empowerment of participants. The authors found that the program fostered students' abilities to participate in public decision-making processes by enhancing their deliberative capacity and argumentation skills (Albornoz-Manyoma et al., 2020). Participating students increased the perception of their own capacity to influence local policies and increased their intention of participating in the future, which are clear indicators of political efficacy. Other studies and reports on school participatory budgeting processes in three different cities of Arizona also found increases in several indicators of political efficacy, especially among younger students (Brennan, 2016; M. Cohen et al., 2015; Keidan, 2020; Kinzle, 2019). Therefore, by developing students' political knowledge and their senses of empowerment, agency, voice, and confidence, youth PB and SPB appear to touch upon several of Bandura's sources of political efficacy.

Schools, Civic Education and Political Efficacy

There is a long educational tradition that contends that, if students experience a democratic community in their schools, they will develop the capacities and commitments to participate more effectively as adults (Apple & Beane, 2007; Baumeister & Leary, 1995; Dewey, 1916; Gandin & Apple, 2002; Hahn 2008; Knoester 2015; Meier 2011; Torney-Purta, Amadeo & Richardson 2016; Wentzel, 1998). This tradition has been supported by studies showing that (1) civic and political knowledge is associated with interest in politics, with willingness to participate, and with the quantity and quality of civic participation; and (2) certain educational practices are more likely to increase such civic and political knowledge (Delli Carpini & Keeter, 1996; Flanagan et al., 2007; Kahne & Sporte, 2008; McFarland & Thomas, 2006; Niemi & Junn, 1998; Torney-Purta, 2002; Youniss & Yates, 1997). Furthermore, it has been argued that young people need interventions in order to develop their citizenship because they do not typically have access to formalized channels to exercise political agency (e.g. voting) and generally have

limited opportunities and capacities to influence political decisions, even in their own school settings (Smith et al., 2005).

Along the same lines, there is also a body of literature that has found positive relationships between school experiences and civic commitments. For instance, in a longitudinal study conducted in Philadelphia with 487 students, Pasek, Feldman, Romer, and Jamieson (2008) found that political knowledge and skills (performance accomplishments) were significantly correlated with internal political efficacy and longterm political practices. This critical source of self-efficacy is amplified as students believe that others in the school have been successful in effecting social change (vicarious experience) and as such they are persuaded to believe in themselves through the encouragement of other students, faculty, parents, or others whose words they find credible (verbal persuasion). These first three sources of efficacy have the effect of strengthening or weakening Bandura's fourth source of efficacy, psychological or "emotional" states (Bandura, 1994), which in turn compounds or confounds the negative or positive effects of the prior three sources.

Moreover, many large surveys have also found a relationship between particular civic experiences in school and a future disposition to become engaged in civic and political activities (Gibson & Levine, 2003; Keeter et al., 2002; Torney-Purta, 2002; Verba et al., 1995). However, it could have been the case that many of the students responding to these surveys already had those commitments and civic experiences. To study this possibility, Kahne and Sporte (2008) conducted a study with 4,057 students from 52 high schools in Chicago and found that certain kinds of civic learning opportunities fostered significant improvements in students' commitments to civic participation, even when controlling for preexisting civic commitments, demographic factors and academic test scores. The authors noted that the impact of civic learning opportunities and of experiencing service learning were substantially larger than any other measures included in their study, including students' prior commitments to civic participation. They also found that discussing civic and political issues with one's parents, extracurricular activities other than sports, and living in a civically responsive neighborhood appear to meaningfully support this goal. Thus, beyond the home and community, students' commitment to civic life appears positively correlated to school-related activities to foster civic knowledge, skills, practices—essential components of Bandura's performance accomplishments source of efficacy.

However, in many societies, economic and social inequalities are often correlated with inequalities of participation in civic and political life. One of the factors to explain this situation is that the opportunities for developing civic competences and for exercising political agency are unequally distributed. In the school system, this situation is expressed in two different ways. First, schools serving children and youth from more privileged backgrounds tend to offer more curricular and extracurricular programs that foster political efficacy than schools serving students from economically disadvantaged groups (CIRCLE, 2013; Kawashima-Ginsberg, 2013; Levinson, 2012). This is compounded by the hidden curriculum that is learned in those schools, as the former schools tend to promote the development of leadership skills and self-confidence, while the latter tend to inculcate obedience and passivity. Second, even within a school, some students are more likely to have more opportunities than others to develop higher levels of political efficacy (Baumann & Brennan, 2017; Railey & Brennan, 2016).

The civic engagement gap can be found not only among schools but also within schools. In many schools, civic engagement initiatives—including student government, debate clubs and other extracurricular programs and activities—tend to exclude students who are less capable of

assimilating adult communication codes. Regardless of whether student participation is the result of an invitation from adults, of a student election, or of self-appointment, the process—often unintentionally—reproduces inequalities and marginalizes groups that are traditionally underrepresented in civic and political life. In many schools, students of color, students with weak academic performance, and low-income students receive less civic learning opportunities (Albornoz-Manyoma et al., 2020; Kahne & Middaugh, 2008, Tisdall, Kay, & Davis, 2004).

School PB, particularly the one that is implemented in Arizona, is a process that can contribute to narrowing these inequalities in civic participation and political efficacy that exist in many schools and societies. Three features of School PB are particularly relevant towards this goal. First, unlike many programs like debate clubs, student government or youth advisory commissions, School PB involves all students: every student can submit proposals for projects, and the final decisions are made by all students through a secret ballot. Second, the students who participate in the steering committee, which is in charge of organizing the process, are mostly students who are often excluded from civic learning opportunities. Third, at the end of the process, all students who are eligible by age are invited to fill a voter registration form in order to be able to vote in local, state, and federal elections. The long-term impact of SPB can be significant, as people with high levels of political efficacy are 20–30% more likely to vote and to engage in civic life than those with low levels of efficacy (Khane and Westheimer, 2006). This is particularly relevant in the United States, where only 33% of citizens believe they can make a difference by working to solve community problems. Not surprisingly, low levels of political efficacy are more prevalent among low-income and racialized communities (Schildkraut & Mistry, 2020).

Methodology

Case Study: Carson Junior High School PB

The present study took place in one school in Mesa, which is the second largest city in Arizona and the first state in the United States to implement SPB. The first experiment with SPB began in one high school (Bioscience High School in the city of Phoenix) in 2013 (M. Cohen et al., 2015). By 2016, the Phoenix Union High School District had expanded the process to five schools, and it was eventually expanded to all the high schools in the district. Today, the process is being implemented in 40 schools in five cities and involves close to 50,000 students every year.

The study was conducted in Carson Junior High, an urban Title I middle school (grades 7-8) with 1,100 students. Most of these students (58%) are Hispanic. White students represent 18% of the student population, and the remaining 24% belong to other minorities (e.g., American Indian, African American, Asian, Pacific Islander). Over one third of all Carson Junior High students (36%) speak a language other than English at home. The SPB process followed the typical activities of many participatory budgeting processes: idea collection, proposal development, deliberation, voting, and implementation. At Carson, the SPB process took place between October 2019 and March 2020. At the beginning of the process, all students were introduced to SPB through school assemblies and social studies classes. Then, a steering committee that represented the school demographics solicited ideas from the student body. In this phase, 280 ideas were collected. The steering committee organized these ideas into themes, eliminating duplications and ineligible proposals and identifying the most popular and feasible ideas. After this exercise, the top 20 ideas were put to the consideration of all students through a primary ballot, and five projects were selected for the final ballot. Then, students deliberated

about the pros and cons of these five proposals and ranked them in priority order at a general vote that included students, teachers, staff and family members.

Sample

Our sample was drawn from the school's SPB steering committee, a group of 31 students who reflected the diversity of the school, considering factors like age, gender, race/ethnicity and ability. (Table 1). We received responses from 28 members of the steering committee.

Table 1
Participant Characteristics (N=28)

Characteristic	***n***	**%**
Genders		
Female	13	46
Male	15	54
Grade level		
Grade 7	11	39
Grade 8	17	61
Home language		
English	18	64
Spanish	8	29
Other	2	7
Ethnicity		
Hispanic	10	35
Black or African American	5	18
White	5	18
American Indian or Alaska Native	4	14
Native Hawaiian or Pacific Islander	2	7
Asian	1	4
Other	1	4

Data Collection and Analysis

We employed a quantitative survey research design, assessing participants' sense of political efficacy through survey items that measured the extent to which they believed they had grown in areas related to political efficacy as a result of their experience in SPB. Our instrument included 45 questions, organized in five constructs: knowledge, skills, practices, attitudes, and school climate (see Appendix A).

The first three of these aligned to Bandura's *performance accomplishment* sources of internal efficacy, measuring students' sense of personal mastery over key civic domains (knowledge and skills) and personal achievements (practices). Items listed under "Attitudes" aligned to Bandura's *emotional states* and described students' sense of political conditions in the school and their disposition toward action. The school climate section included items related to Bandura's *vicarious experience* and *verbal persuasion* sources of efficacy as well as to *external*

political efficacy. Each question contained two "Likert-type" responses, ordered from "strongly disagree" (1) to "strongly agree" (5). One response represented students' best recollections of how they perceived themselves before their participation in the SPB process ("Before"), and the other represented students' beliefs about themselves at the time of the survey, which was after SPB had concluded ("After").

We collected students' responses orally, walking students through each item on the survey instrument. Oral survey administration allowed us to collect responses from a large number of respondents in an efficient way and allowed us to ensure that all students present on the day of the survey participated. This yielded a 90% response rate, with 28 out of 31 students participating (three students were not at school on the day of the survey administration, and the school closed shortly thereafter due to COVID-19). Furthermore, by administering the test orally, we were able to ensure that our participants completed all items on the instrument—an important advantage, given the fact that our sample participants were young people whose patience and motivation to complete the survey could not be assumed (Fowler, 2009). Finally, an oral administration of the survey allowed us to define words as needed (Vogt et al., 2012), an important consideration given that 36% of the steering committee members spoke a language other than English in their homes.

We conducted a Cronbach's alpha reliability analysis and found that each of Bandura's constructs maintained an alpha greater than .80, clearing the .70 level recommended by Nunnally (1978; see also Greco et al., 2018; Peterson, 1994) For each construct, we calculated the mean and standard deviation of all student responses on the construct's items to create Likert scale scores. In doing so, we followed recent scholarship proposing that Likert scale data, which commonly follows a normal distribution, may be treated as interval and analyzed with parametric methods (Boone & Boone, 2012; Carifio & Perla, 2008; Norman, 2010; Sullivan & Artino, 2013). We calculated the change in students' mean responses from Before to After as an effect size measured as Cohen's *d*, a value which indicates the standardized difference between two means (J. Cohen, 1988; Keppel & Wickens, 2004), with a *small* effect size as $0.2 \leq d < 0.5$, a *medium* effect size as $0.5 \leq d < 0.8$, and a *large* effect size as $d > 0.8$ (see results, below). All changes in construct means were statistically significant at $p < 0.001$.

Limitations

This study has two main limitations. The first is that we relied on self-reported data, and some students may have responded in a socially desirable manner, exaggerating their learning and change in order to please the researchers. This limitation is typical of studies that ask participants about the impact of a program. This risk was mitigated by interviewing teachers, school leaders and parents about any changes they observed among students. Overwhelmingly, educators and parents reported significant changes among the children, particularly in areas related to self-confidence.

The second limitation is the sample size. Our sample frame consisted of the 31 members of the steering committee, but on the day of the survey, three students were absent and could not be part of our sample. Unfortunately, statewide COVID-19 school closures prevented us from following up with these three students. Thus, our final sample of 28 represented 90% of the sample frame, a high response rate for purposes of validity in interpretation. Having said that, we recognize that a sample size of 28 (or even 31) may present a challenge for claims of generalization. Having said that, however, we also recognize that studies with small sample sizes can resonate with researchers and practitioners and prompt further inquiry. Researchers such as Stake and Trumbull (1982) argue that while such studies are not generalizable in a traditional or

statistical sense, they may nevertheless "stimulate discussion and dialogue among practitioners, serving as a springboard to further examine the situation portrayed in the report" (1982, p. 5). In this spirit, we present these findings as an invitation for potential takeaways for multiple readers of this work and to prompt further research in other SPB contexts to add to our collective knowledge about the effects of SPB.

Findings

Overall, we found that participants perceived themselves to have experienced a significant degree of growth (d = 1.46) in overall political efficacy (Table 2). This growth had a large effect size (d > 0.8) across nearly all constructs, though less growth was reported in some constructs than in others. We believe that these differences between effect sizes are consistent with our theoretical framework.

Table 2
Political Efficacy (n=28)

Item	*M*		*SD*			
	Before	**After**	**Before**	**After**	**Δ*M***	**Cohen's *d***
Personal Accomplishment	2.56	3.87	0.48	0.52	1.31	2.61***
Emotional States	2.81	4.10	0.78	0.60	1.29	1.85***
Vicarious Experience	2.98	3.79	0.81	0.73	0.81	1.06***
Verbal Persuasion	3.42	4.11	1.02	0.88	0.69	0.73***
External Political Efficacy	3.03	3.92	0.79	0.67	0.89	1.21***
Political Efficacy	2.98	3.95	0.71	0.62	0.97	1.46***

Note: *** = p < 0.001 for the test of statistical significance for difference between means.

As shown in Table 2, students perceived themselves to have made substantial progress in the area of Personal Accomplishment. These survey items included those related to knowledge, skills, and practices and reflect students' beliefs that they had made significant progress in their understanding of and ability to engage in the participatory democratic processes of SPB. Bandura (1994) argued that Performance Accomplishment was the most important source of efficacy, and, in our study, we found that this was the construct with the largest effect size (d = 2.61). Bandura also believed that emotions respond to or affect the other sources of efficacy, and the construct with the second largest effect size was Emotional States (d = 1.85), which struck a middle ground between the very high Personal Accomplishment results and the relatively lower Vicarious Experience and Verbal Persuasion results. While growth in the remaining constructs—Vicarious Experience (d = 1.06), Verbal Persuasion (d = 0.73), and External Political Efficacy (d = 1.21)—was lower than the first two, students rated themselves higher on these constructs before SPB than they did in the Performance Accomplishment and Emotional States constructs. It is, therefore, understandable that these last three constructs registered a lower degree of growth. Nevertheless, the students' responses in the last three constructs were at a medium or large effect size, and the results were significant. In other words, the students still perceived themselves to have experienced considerable growth in these areas, as well. In summary, our

participants reported significant overall growth at a large effect size in political efficacy through their experience in school participatory budgeting.

Discussion

To return to our research question, was the large effect size in self-perceived growth in political efficacy moderated or strengthened by participants' experiences in the SPB steering committee? We believe that the SPB experience itself did indeed account for this self-perceived growth. We believe this for two reasons. First, the survey itself asked students to report on their growth specifically in light of their SPB experiences. Second, this finding is consistent with prior research in civic learning, which suggests that it is reasonable to expect such a large effect size from an intervention like SPB. As discussed in the introduction, consensus has begun to emerge over the past decades on the effectiveness of participatory and deliberative civic pedagogies in fostering civic engagement and dispositions. The *Civic Mission of Schools'* "Six Proven Practices" of civic education (Gibson & Levine, 2003; Guilfoile & Delander, 2014) has often been cited in this regard. Within these six practices, the first is civic knowledge. Building upon civic knowledge are student deliberation about current issues of relevance to them, community service linked to classroom learning, extracurricular community engagement, involvement in school governance, and participation in democratic processes. The SPB experience connected the six components (Table 3).

Table 3
School PB as Civic Education

Six Proven Practices	**School PB Components**
1. Civic knowledge	The social studies classroom as the SPB hub
2. Student deliberation about current issues of relevance to them	SPB deliberations focused on proposals aiming to improve their school experience
3. Community service linked to classroom learning	Steering committee members' service to their fellow students was directly connected with their social studies classroom experience
4. Extracurricular community engagement	SPB steering committee participation was a step beyond the classroom requirements
5. Involvement in school governance	SPB allows students to directly choose the way the school spends its money
6. Participation in democratic processes	SPB culminates with a schoolwide vote using the county's official voting booths and ballots

As shown in Table 3, students learned about participatory democracy through social studies classes and about PB processes throughout the school year (proven practice #1). They also experienced deliberative processes for themselves as they discussed the strengths and

weaknesses of projects and helped their fellow students consider the pros and cons of competing alternatives (proven practice #2). Through volunteering to serve on the committee, they took a step beyond the classroom to serve their school community while enacting the principles they were learning inside the classroom (proven practices #3 and #4). Finally, they experienced what it felt like to have a voice in school governance as they took part in a vote that promised to make a tangible difference in their lives (proven practices #5 and #6). These students saw themselves as having made significant strides in their self-efficacy, an outcome that would be expected based on the comprehensive nature of SPB as civic pedagogy. As an additional testament to the program's effectiveness, the administration of Carson Junior High decided to continue with SPB in the 2020-2021 school year.

Thus, interpreting students' self-described growth in political efficacy in light of this SPB experience, we understand SPB's multi-faceted civic learning experience to have had a moderating influence in the development of our participants' political efficacy.

Concluding Remarks

One of the implications of Bandura's theory is that higher levels of empowerment lead to a higher level of participation, and vice-versa, in a virtuous cycle. In other words, as people develop higher levels of political efficacy, they are more willing to participate in civic and political life, and the more they participate, the more sense of political efficacy they develop. Over the past two decades, the development of students' sense of political efficacy through participatory civics education has shifted the focus of civics education toward praxis—that is, toward a model for civic education in which efficacy and agency, rather than knowledge alone, are explicit goals of a comprehensive civics education (Haste, 2004; Youniss et al., 2002). This participatory form of citizenship education builds on a foundation of civic knowledge but is paired with a learning environment in which students are provided opportunities to enact classroom theory through deliberative and participatory citizenship (Gould et al., 2011; Guilfoile & Delander, 2014; Hansen et al., 2018; Levine & Kawashima-Ginsberg, 2017).

In sum, SPB appears to be particularly well-suited to contribute to this new breed of civics education. When integrated with classroom instruction, it provides a practical mechanism for bridging the knowledge, skills, practices, and attitudes that form the primary sources of internal political efficacy. Moreover, through a democratic school climate that provides strong affirmation of students' voices, growth in external political efficacy is built into the students' experience (Bandura, 1997; Kahne & Westheimer, 2006). In tying together these multiple dimensions of civic learning, SPB ultimately offers students an authentic experience of the power—and efficacy—of participatory democracy.

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Appendix A

Survey Instrument

For each of the following statements, please identify what you believe about yourself and your school **before** engaging in school participatory budget (SPB) and **today**. For each item, "1" means strongly disagree and "5" means strongly agree.

	Before SPB	**Today**
Knowledge		
1. I know how to get things done at my school.	1 2 3 4 5	1 2 3 4 5
2. I know how decisions are made in my school.	1 2 3 4 5	1 2 3 4 5
3. I know students from other grades in my school.	1 2 3 4 5	1 2 3 4 5
4. I know the needs of students in my school.	1 2 3 4 5	1 2 3 4 5
5. I know about participatory democracy.	1 2 3 4 5	1 2 3 4 5
6. I know about school regulations.	1 2 3 4 5	1 2 3 4 5
7. I know what a budget is.	1 2 3 4 5	1 2 3 4 5
Skills		
8. I can listen carefully before responding.	1 2 3 4 5	1 2 3 4 5
9. I can speak in front of other people.	1 2 3 4 5	1 2 3 4 5
10. I can persuade others.	1 2 3 4 5	1 2 3 4 5
11. I can collaborate in a team.	1 2 3 4 5	1 2 3 4 5
12. I can organize others to solve a problem.	1 2 3 4 5	1 2 3 4 5
13. I can organize idea proposals.	1 2 3 4 5	1 2 3 4 5
14. I can analyze information to select proposals.	1 2 3 4 5	1 2 3 4 5
15. I can resolve conflicts.	1 2 3 4 5	1 2 3 4 5
16. I can make decisions in a group.	1 2 3 4 5	1 2 3 4 5
17. I can advertise proposals.	1 2 3 4 5	1 2 3 4 5
18. I can motivate others to get involved.	1 2 3 4 5	1 2 3 4 5
Attitudes		
19. I feel connected to my school community.	1 2 3 4 5	1 2 3 4 5
20. I am concerned about fixing problems in my school.	1 2 3 4 5	1 2 3 4 5
21. I am interested in participating to make changes in my school.	1 2 3 4 5	1 2 3 4 5
22. I feel confident I can make a difference in my school.	1 2 3 4 5	1 2 3 4 5
23. I believe when people work together they can make a difference.	1 2 3 4 5	1 2 3 4 5
24. I feel that my ideas are being heard.	1 2 3 4 5	1 2 3 4 5
25. I trust teachers in my school.	1 2 3 4 5	1 2 3 4 5
26. I feel comfortable working with students who have different learning abilities.	1 2 3 4 5	1 2 3 4 5
27. I respect other people's ideas, even if I disagree with them.	1 2 3 4 5	1 2 3 4 5

Practices		
28. I talk with others about problems in the school.	1 2 3 4 5	1 2 3 4 5
29. I think up ideas to solve these problems in the school.	1 2 3 4 5	1 2 3 4 5
30. I propose these ideas to others.	1 2 3 4 5	1 2 3 4 5
31. I talk to teachers outside of my class.	1 2 3 4 5	1 2 3 4 5
32. I help to keep my school clean.	1 2 3 4 5	1 2 3 4 5
33. I want to work on more projects to improve my school.	1 2 3 4 5	1 2 3 4 5
34. I expect to vote as soon as I am allowed to.	1 2 3 4 5	1 2 3 4 5
35. I help to make decisions in my school.	1 2 3 4 5	1 2 3 4 5
School Climate		
36. Students enjoy working together.	1 2 3 4 5	1 2 3 4 5
37. Students care about each other.	1 2 3 4 5	1 2 3 4 5
38. Students treat each other with respect.	1 2 3 4 5	1 2 3 4 5
39. Students get along well with each other.	1 2 3 4 5	1 2 3 4 5
40. Students in this school respect each other's differences (gender, race, culture, sexual orientation, abilities, etc.).	1 2 3 4 5	1 2 3 4 5
41. Adults in this school listen to students like me.	1 2 3 4 5	1 2 3 4 5
42. Adults in this school treat students with respect.	1 2 3 4 5	1 2 3 4 5
43. This school encourages students to feel responsible for their decisions.	1 2 3 4 5	1 2 3 4 5
44. This school helps students resolve conflicts.	1 2 3 4 5	1 2 3 4 5
45. This school encourages students to care about how others feel.	1 2 3 4 5	1 2 3 4 5