

Best Practices for Sustainably Integrating School Gardens into the Corvallis School
District Wellness Policies

by

Cassidy N. Radloff

A THESIS

submitted to

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Honors College

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the requirements for the
degree of

Honors Baccalaureate of Science in Public Health
(Honors Scholar)

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Abstract approved:

Gerd Bobe

Participation in school garden programs improves health outcomes in K-12 student and is an effective tool for experiential learning. Although most schools in the Corvallis School District have a school garden, none are currently integrated into the curriculum. Using a cross-sectional, online survey, I learned that the majority of parents of K-12 students in the Corvallis School District would like a school garden that is integrated into the curriculum or is offered as elective. Based on these results, I have identified three U.S. school districts that have successfully and sustainably integrated school gardens into the school district wellness policies. My recommendations are that the Corvallis School District funds a School Garden Coordinator at the district level, develops a holistic district-wide wellness policy that includes school gardens, and partners with community organizations to create a curriculum that utilizes school gardens.

Key Words: K-12 schools, School curriculum, School gardens, Sustainable

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I understand that my project will become part of the permanent collection of Oregon State University, Honors College. My signature below authorizes release of my project to any reader upon request.

Cassidy N. Radloff, Author

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I would like to take this space to acknowledge the Healthy Youth Program, and all it's wonderful staff, not only for collaborating with me for this thesis, but for allowing me the great privilege of working with them for the past three years. The work that the Healthy Youth Program does in our community is truly amazing, and I am so happy that I got to contribute to it. Thank you for your passion, energy, and positivity, all of which are needed when working in public health and education, Although graduation marks the end of my employment with the Healthy Youth Program, I am very excited to continue my work in the Corvallis community and to partner with the Healthy Youth Program in the coming years!

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CHAPTER 1

INTRODUCTION

School Gardens are multi-faceted learning tools that promote positive health outcomes, a healthy lifestyle, and offer opportunities for experiential learning and skill-building (Gatto, 2012, Blair, 2009). Experiential learning improves cognitive development in youth by enlisting higher orders of cognitive function such as creative inquiry, critical thinking, and problem solving (Blair, 2009).

According to the latest numbers from the Oregon Department of Education, there are a total of 624 school gardens in the state of Oregon, and 17 of those are in Benton County (ODE, 2016). Eleven of the 17 school gardens in Benton County are in the Corvallis School District (ODE, 2016). Each garden varies greatly in funding methods, maintenance, and utilization, and none are integrated into the school curriculum. The current model is unsustainable, and the existing gardens are largely underutilized.

The objectives of this thesis are to:

- Summarize the health and educational benefits of school gardens
- Describe three case studies of school districts that have successfully and sustainably integrated school gardens into the school curriculum
- Evaluate the perception of parents who have children in the Corvallis School District regarding utilization of school gardens
- Provide concrete recommendations for the Corvallis School District how to successfully and sustainably integrate school gardens into the school curriculum

CHAPTER 2

BACKGROUND AND SIGNIFICANCE

Health Benefits of School Gardens

More than one third of all adolescents in the United States report eating fruits and vegetables less than once daily (CDC, 2015). This means that adolescents are lacking critical nutrients during the time that they need them the most: development. Consuming a healthy diet is a determinant of development and growth, including bone and cognitive function, is a major factor in the maintenance of energy levels, and plays a key role in preventing chronic disease (CDC, 2015). Lacking a healthful diet is associated with poor academic performance, and poor behavioral functioning (Alaimo, Olson & Frongillo, 2001).

In the state of Oregon, the percentage of 8th graders who consumed the USDA recommended minimum of five servings of fruits and vegetables daily decreased by 24% between 2001 and 2009, and by 29% for 11th graders (Buelow, V., & Ngo, D, 2012). At the same time, the percentage of adolescents who consumed seven or more soft drinks weekly increased by 40% for 8th graders, and 47% for 11th graders (Buelow, V., & Ngo, D, 2012). This demonstrates a decrease of fruit and vegetable intake, and a significant increase in the number of soft drinks consumed by Oregon adolescents. In order to combat malnutrition, obesity, and chronic disease in adolescents, many are looking to the schools to make changes.

Programs aiming to alter the food-school environment, such as school garden based education, and farm-to-school programs, are becoming more common, and are a means to introducing kids to healthy foods, and to provide them the tools that they need to make healthy lifestyle choices. School gardens can be utilized as “living laboratories” where children can experience healthy food production, and nutrition first-hand (Langellotto, 2012). Garden-based programs have been shown to aid children in building healthy habits, especially around improving fruit and vegetable preference, as well as willingness to try new vegetables (Langellotto, 2012). To be an effective nutrition intervention, school garden programs are often paired with nutrition and/or cooking education, to create a truly holistic learning experience (Langellotto, 2012). Some research has not only shown changes in preferences and increased intake of fruits and vegetables, but have also shown that children who participated in school-based nutrition education could identify benefits of fruits and vegetables (Robinson-O'Brien, 2009). Other nutrition knowledge, such as the ability to identify, and sort foods into food groups has also been shown to be a result of garden-based nutrition education (Robinson-O'Brien, 2009). Garden-based nutrition education that incorporates cooking, or tasting activities, have been shown to not only have the previously listed benefits, but also resulted in improved self-efficacy when it came to consuming, and preparing healthy foods (Robinson-O'Brien, 2009).

One garden-based nutrition intervention program, LA Sprouts, found that after participating in their 12 week program, 4th and 5th grade participants expressed an increased preference for vegetables, as well as reported positive changes in perceptions

and self-efficacy related to cooking healthy meals (Gatto, 2012). But perhaps the most significant result from the LA Sprouts study was that the program participants experienced decreases in BMI, the number of participants with metabolic syndrome decreased, and participants increased their fiber intake significantly (Gatto, 2012).

Educational Benefits of School Gardens

School Gardens not only promote a healthy lifestyle, promote food literacy and can be used as a public health intervention, but they also provide opportunities for experiential, hands-on learning, and skill-building (Blair, 2009). Experiential Learning is a learning process that is defined by incorporating “real life” or hands-on experience with the learning of concepts or theories (Kolb 1984). There are four main defining characteristics of Experiential Learning Theory: 1) Emphasis on the process of learning and adaptation more so than on behavioral outcomes, 2) Accepting that knowledge is not a single entity to be lost and gained, but is a continuously changing process based in experience and adaptation, 3) Focus on the interactions and transactions between the person and the environment, and 4) Understanding that learning is the connection between personal knowledge and social knowledge (Kolb, 1984). As shown in FIGURE 1, the Experiential

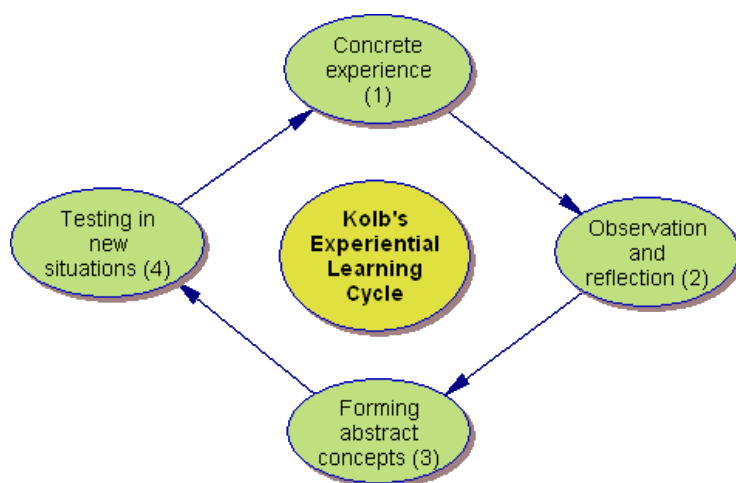


FIGURE 1. Kolb's Experiential Learning Cycle (adapted from <http://www.learning-theories.com/experiential-learning-kolb.html>)

Learning Theory identifies four distinct phases of learning that are a part of the continuous feedback loop that is the learning process: 1) Concrete experience, 2) Observation and reflection, 3) Forming abstract concepts and generalizations, and 4) Testing implications of concepts in new situations (Kolb, 1984).

Experiential learning improves cognitive development in youth, and has been shown to “effectively stimulate higher orders of cognition” (Blair, 2009). This is due in part to the creation of new “cognitive structures” that are formed between a learned theory or concept, and a memory of experience (Beard, 2009).

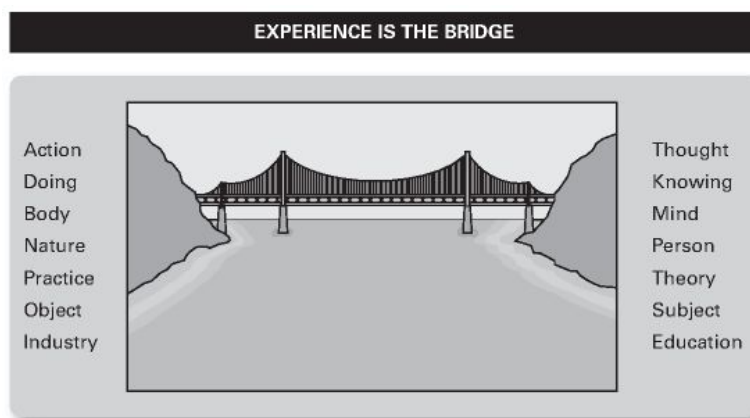


FIGURE 2- Experience is the Bridge. Adapted from: [http://reader.eblib.com.ezproxy.proxy.library.oregonstate.edu/\(S\(ebeehnoobvqhzcgtgfd3a2lr\)\)/Reader.aspx?p=1318826&o=450&u=A4dlgKXX8g%3d&t=1463360234&h=A51192EEC3C0AE4DD735C594B535F3B8FAB809D4&s=45234713&ut=1354&pg=1&r=img&c=-1&pat=n&cms=-1&sd=2#](http://reader.eblib.com.ezproxy.proxy.library.oregonstate.edu/(S(ebeehnoobvqhzcgtgfd3a2lr))/Reader.aspx?p=1318826&o=450&u=A4dlgKXX8g%3d&t=1463360234&h=A51192EEC3C0AE4DD735C594B535F3B8FAB809D4&s=45234713&ut=1354&pg=1&r=img&c=-1&pat=n&cms=-1&sd=2#)

Experiential Learning is a way to “bridge students' perceived gap between their academic learning and the ‘real world’,” a concept that has been deemed the “Bridging Concept” (Young, 2002, Beard, 2009; FIGURE 2). School Gardens have been shown to be an effective tool for elevating the educational experience of youth by providing the opportunity to apply classroom learning to the “real-world”, and to provide hands-on learning for subjects that are traditionally based in classroom teaching (Blair, 2009). For examples of garden-based curriculum that utilize experiential learning, see **Appendix A**.

CHAPTER 3

CASE STUDIES

Introduction

In order to propose best practices for sustainably integrating school gardens into the Corvallis School District, it is crucial to look towards school districts that have already successfully integrated school gardens into their wellness policies. For one, while Corvallis is a unique community with its own existing structures and barriers, there are lessons to be learned from examining the process and outcomes of other communities. “Sustainably integrating” can mean something different for each school district, so the outcomes and uses of the school gardens will look different. Secondly, researching best practices of other communities will be a guide as I seek to provide recommendations for next-steps to the Corvallis School District. Lastly, having concrete examples of communities that have successfully integrated school gardens into their school districts will be crucial when advocating for the support of the Corvallis School District. Showing that it is not only possible, but achievable via numerous different avenues, will increase the chances that the Corvallis School District will provide support to the existing

Rationale

I utilized the following criteria when evaluating already existing programs:

- Programs were founded in a sustainable funding source.
- Programs had holistic support; meaning that the school district, community entities, parents, and teachers were all collaborating to create and maintain the program.

- The programs were still viable today, and it was clear that there were systems in place to sustain it long-term.

Furthermore, when choosing case studies of school districts in the country who had successfully and sustainably integrated school gardens into their schools, my focus was to choose distinct approaches in which school gardens gained financial, systematic, and personnel support. This will allow for a thorough exploration of true best practices, as well as the opportunity to identify goals that the Corvallis School District should be aiming to achieve in the coming years.

Based on the aforementioned criteria, I focused on the following three programs:

Washington D.C. Public Schools via the D.C. Healthy Schools Act of 2010, Santa Cruz City School District, and San Francisco Unified School District.

Case Study One: The D.C. Healthy Schools Act of 2010

Introduction

The D.C. Healthy Schools Act of 2010 is a law that was passed in May 2010, and took effect in August 2010 (D.C. Healthy Schools Act). Originally, the Act was proposed in conjunction with a penny-per-ounce soda tax that was meant to be the source of funding for all of the requirements of the Act (Ivas, 2010). When both were voted on in early May 2010, the Act was passed, but the soda tax was not (Ivas, 2010). On May 26, 2010, it was announced that the Act would be funded not through the previously proposed penny-per-ounce soda tax, but an amended six-percent soda tax (Ivas, 2010). The revenue of the tax is estimated to be approximately \$7.92 million annually, while the

cost of the Healthy Schools Initiative is approximately \$6.5 million annually (Ivas, 2010). The D.C. Healthy Schools Act took effect at the beginning of the 2010-11 school year (D.C. Healthy Schools Act). The Act was amended in 2011 and 2012, and is still in place (D.C. Healthy Schools Act).

Contents

The law approaches the health of Washington D.C. schools in a holistic way, and addresses eight different major topics (D.C. Healthy Schools Act):

1) Breakfast and Lunch Access, 2) School Nutrition, 3) Farm to School, 4) Physical Activity and Education, 5) Health Education, 6) School Environment, 7) Competitive Foods, and 8) Health and Wellness

School Garden Program

The most notable piece of the “School Environment” section, is the language around school garden implementation and the responsibilities of the School Garden Program: “Coordinate the efforts of community organizations, the Department of Parks and Recreation, the District Department of the Environment, the District of Columbia Public Schools, the Department of General Services, the Public Charter School Board, and the University System of the District of Columbia to establish gardens as integral components of public schools and public charter schools” (D.C. Healthy Schools Act of 2010, p. 24). The implementation of school gardens is outlined as a collaborative effort, and includes convening a “Garden Advisory Committee” that includes key partners and

stakeholders, but the overarching School Garden Program is housed within the Office of the State Superintendent of Education (OSSE). The OSSE is responsible for the coordination and data collection of school gardens, as well as providing training, curriculum, and technical assistance to schools. According to a 2011 amendment to the Act, the OSSE is now also responsible for assisting schools in achieving certification as a U.S. Department of Education Green Ribbon School. In 2012, the OSSE provided a School Garden Report to the Mayor, the Council, and the Healthy Schools and Youth Commission, that outlined the current state of the school garden program in D.C. as well as recommendations for moving forward and expanding.

The D.C. University System also plays a critical role in the School Garden Program, providing technical assistance and curriculum, as well as soil-testing of school garden sites. The Act requires soil to be tested, and deemed safe in order for schools to be able to serve the produce from the school garden in the cafeteria, and to be able to sell the produce to raise funds to support the school.

Apart from providing curriculum resources, technical and coordination support for the School Garden Program, the OSSE is also required to manage the “DC School Garden Grant” program, which is the largest sources of funding for school gardens from the Act (OSSE, 2016). The purpose of this grant program is to “ increase the capacity and scope of DC school gardens as educational resources. As such, the grant promotes the use of a school garden(s) by school personnel to facilitate meaningful learning experiences for students in the classroom, garden, and cafeteria. This three-pronged approach helps students gain exposure to new foods and insight into the source of their food and the

myriad benefits of gardening and consuming locally grown produce” (OSSE, 2016). However, the “DC School Garden Grant” program has a very strong emphasis on specifically funding School Garden Coordinator positions, because they acknowledge that “the biggest barrier schools face in establishing and sustaining garden programs is the lack of a School Garden Coordinator (SGC)” (OSSE, 2016). The scope of work that OSSE outlines for a SGC includes school garden “program management, technical support, and instruction,” as well as working very “closely with the classroom teachers to plan and deliver nutrition-based lessons in the garden and the classroom” (OSSE, 2016). Schools may apply for up to \$15,000 in funding each cycle, of which a minimum of 80% must be designated to fund a SGC position, whose pay can be no more than \$30/hr (OSSE). For a full description of the responsibilities of a School Garden Coordinator, see **Appendix B**. Other uses for funds include: teacher stipends, materials and supplies, professional services (garden design, curriculum development, etc.), and food (with restricted use) (OSSE, 2016). All public, and public charter schools in the Washington D.C. School District are eligible for funds, as long as they have completed and submitted their School Health Profile for the previous school year (OSSE, 2016). Schools are only eligible to receive funding three times within a five year period, as to promote self-sustaining programs, and to provide equal opportunity to all schools.

The “DC School Garden Grant” program requires schools to partner with a community organization in order to be eligible for funding, and OSSE provides a list of recommended partner organizations in their grant application materials. Schools that are applying for more than \$5,000 must contribute cost-sharing funds that equal or exceed

20% of the amount applied for. This is yet another measure and requirement that promotes school garden programs to be more sustainable, and to have buy-in from the key stakeholders.

Beyond the grant program, Wellness and Nutrition Services within the Washington D.C. School District houses a School Garden Specialist, Farm to School Specialist, and an Environmental Literacy Specialist, all who support the school garden and farm to school programming at the schools (OSSE, 2016). In 2013, Washington D.C. hired their first full-time, salaried, Garden Coordinator at one of their schools (Bernardi, 2013). The position originated from OSSE grant funding, that was then matched by the school's PTA funds to extend the number of hours that they Garden Coordinator was able to work (Bernardi, 2013). Over a three-year period, the position slowly grew, until the principal assigned a full-time teaching position to the Garden Coordinator (Bernardi, 2013). Although this is one unique case, it can serve as a model for other schools looking to sustain their own school garden.

The OSSE acknowledges that school garden and farm-to-school efforts have historically been “spearheaded by a few champions of the school garden and farm-to-school movement, on top of their primary responsibilities,” resulting in a very unsustainable model (OSSE, 2016). Through the grant program, the positions at the school district dedicated to managing and coordinating school garden and farm-to-school programming, and the requirements of the Healthy Schools Act of 2010, Washington D.C. has developed a much more sustainable model.

Progress Report

Since the implementation of the Healthy Schools Act of 2010, the Wellness and Nutrition Services division of the D.C. Public Schools has released a formal Progress Report on the progress that has been made (WNS, 2014). As of 2014, 99% of schools in the D.C. Public School District were compliant with the Healthy Schools Act requirements, and 100% of schools serve locally grown and unprocessed food to students (WNS, 2014). According to the report, the D.C. Public School District has 93 active school gardens (WNS, 2014).

Case Study Two: Santa Cruz City School District

In 2008, a Santa Cruz City Elementary School District parcel tax was being included on the ballot to be renewed (Santa Cruz City Elementary School District parcel tax, Measure P, 2008). School Garden Educators and advocates approached the Santa Cruz City Schools Parcel Tax Oversight Committee with an extensive list of programs and positions that should be supported by the tax-revenue, and made a case to include four Garden Coordinator positions (one for each elementary school in the Santa Cruz Elementary School District) wages into the proposed parcel tax (Cohen, 2012). The Santa Cruz City Schools Parcel Tax Oversight Committee decided to include the four Garden Coordinator positions into the proposed parcel tax, budgeting for each coordinator to work 20 hours per week, and receive benefits (Cohen, 2012). The tax appeared on the February 2008 ballot as follows: "To reduce class size in all elementary grades, support achievement in science, reading, writing, and the arts, and fund school libraries and

literacy instruction, shall Santa Cruz City Elementary School District continue its expiring parcel tax for nine years at an annual rate of \$105/ parcel, exempting parcels owned/ occupied by senior citizens (65+). An independent oversight committee will audit spending, with every dollar staying in this community to support local elementary schools and no funds used for administrator salaries” (Santa Cruz City Elementary School District parcel tax, Measure P, 2008). To see the full proposed measure, refer to **Appendix C**. The measure was passed with 80.14% vote, and was adopted on July 1, 2008 at the start of the fiscal year (Santa Cruz City Elementary School District parcel tax, Measure P, 2008). The measure will sunset on June 30, 2017, at which time it will be reevaluated (Santa Cruz City Elementary School District parcel tax, Measure P, 2008).

The Santa Cruz City School District is partnered with Life Lab, an organization that hosts garden education at two different outdoor classroom locations in Santa Cruz, to sustain their school gardens (SCOGE, 2016). Life Lab provides training and curriculum for the Garden Coordinators to utilize throughout the school year (SCOGE, 2016). All four elementary schools in the Santa Cruz City School District offers Life Lab’s cooking, nutrition, and garden education within the school garden. One of the school’s website describes their school garden as an “important part of our school and helps to augment curriculum being taught in the classroom by focusing on Hands-On Science lessons” (Westlake Elementary, 2016).

Case Study Three: San Francisco Unified School District

In 2001, The San Francisco Green Schoolyard Alliance formed to further their mission of “promoting inclusive, community-driven processes that create and maintain healthy, environmentally sustainable learning environments in San Francisco's schools” (San Francisco Green Schoolyard Alliance). They then spearheaded an extremely successful campaign to fund, and support the development of school gardens in San Francisco Schools (San Francisco Green Schoolyard Alliance, 2016). In 2003, through Proposition A: School Bonds, they ended up securing \$14 million in city bond funding to design and implement school gardens at 84 public schools in the San Francisco Unified School District (Education Outside, 2016). For the full text of Proposition A: School Bonds, see **Appendix D**.

From the Green Schoolyard Alliance, the organization Education Outside emerged, and has taken the lead on coordinating the utilization and management of the school gardens in the San Francisco Unified School District (Education Outside). As Education Outside began to work with school gardens in their communities, they acknowledged that in order to have thriving school garden communities, “green schoolyards need dedicated stewards,” which is often not possible for schools to provide (Education Outside, 2016). In 2011, they decided to pursue an AmeriCorps service-based method, placing 40 AmeriCorps service members at 37 schools in the San Francisco Unified School District (Education Outside, 2016). The service members commit to work two years in the school district as a full time garden educator and coordinator (Education Outside). All service members use the same developed curriculum, creating a consistent

experience across the school district. Today, Education Outside is funded by private and corporate donations, as well as local and national grants (Education Outside, 2016). They currently have 37 partner schools in the San Francisco Unified School District, with a wait list of schools hoping to partner in the future (Education Outside, 2016).

Comparison

TABLE 1 shows the comparison of the three school programs. Whereas the D.C Health School Act of 2010 is funded by regular tax, the other two programs were funded by temporary taxes or school bonds, which makes the sustainability of the programs less secure. Whereas the D.C. School Act and the Santa Cruz City School District employed full-time garden coordinators, the San Francisco Unified School District used AmeriCorps Service Members and, as a result, had a high fluctuation in personnel. Whereas the Santa Cruz City School District and the San Francisco Unified School District had a limited number of collaborators, the D.C. Healthy Schools Act of 2010 tried to involve community organizations to gain broader support. The broader support of the wellness program in DC, allowed more resource opportunities for teachers.

TABLE 1. Comparison of sustainable wellness programs in three school districts

	The D.C. Healthy Schools Act of 2010	Santa Cruz City School District	San Francisco Unified School District
Funding for school garden implementation	Washington D.C. Soda Tax	School District Parcel Tax: Measure P	Proposition A: School Bonds
Funding for school garden maintenance	Washington D.C. Soda Tax/School Garden Grant Program	School District Parcel Tax: Measure P/Life Lab	Education Outside-private/corporate donations, grants
Personnel	Garden Coordinators	Garden Coordinators	AmeriCorps Service Members
Collaborators	School district, OSSE, individual schools, community organizations, university system	School district, individual schools, Life Lab	School district, individual schools, Education Outside, AmeriCorps
Resources for teachers	School Garden Grant program, OSSE trainings and curriculum	Curriculum support, trainings	Some curriculum support

CHAPTER 4

CORVALLIS SCHOOL DISTRICT ONLINE NUTRITION EDUCATION PARENT SURVEY

Introduction

The Corvallis School District Online Nutrition Education Parent Survey is an eight-question survey that was created by the Healthy Youth Program to learn more about what parents and guardians of Corvallis public school K-12 students wanted to see in terms of cooking, nutrition, and garden education, at their children's' schools. The survey was disseminated via the participating school's electronic newsletters, and data was collected anonymously. The goal of the survey was to guide the programming of the Healthy Youth Program, as well as to better understand what was wanted in terms of district-wide policy change.

Linus Pauling Institute Healthy Youth Program

The Healthy Youth Program is one of the outreach branch of the Linus Pauling Institute at Oregon State University, whose mission is, "Empowering youth and their families to achieve optimal health through hands-on education" (HYP, 2016). The Healthy Youth Program achieves this mission through garden and nutrition education for youth preschool through twelfth grade, and their families (HYP, 2016).

The Healthy Youth Program maintains and offers programming to various degrees at three schools in the Corvallis School District: Lincoln Elementary School, Linus Pauling Middle School, and Corvallis High School (HYP, 2016). The Healthy Youth Program's

garden programming includes summer camps, after-school garden clubs, classroom garden education, and a high-school farm fellowship program (HYP, 2016).

Corvallis Community Vision for Education

In 2007, the Corvallis School Board adopted the “Corvallis Community Vision for Education”, a document that was created with the goal “to engage the citizens of Corvallis in a conversation about the quality and character of Corvallis public schools” (Corvallis Community Vision for Education, 2007). During the Fall of 2006 and Winter of 2007, community members and key stakeholders came together to participate in community forums, online surveys, and school-based events, to identify features that the community wanted to be included in the Corvallis Public Schools (Corvallis Community Vision for Education, 2007). Hands-on and Experiential Learning was a recurring quality that the community believed was a crucial part of a quality education (Corvallis Community Vision for Education, 2007). The following recommendation concerning Experiential Learning was presented to, and included in the document that was adopted by the Corvallis School Board: “Provide resources for hands-on and project-based learning. Align purchase of curriculum and materials to support this learning. Hire staff who can deliver hands-on and project-based learning. Provide training for current staff. Provide primary students with daily opportunities to engage in hands-on learning experiences and secondary students with a hands-on/project-based learning experience at least once a semester. Nurture community partnerships that support hands-on learning,”

(Corvallis Community Vision for Education, 2007, p. 15). As demonstrated in Chapter 2, School Gardens have proven to be a successful tool for experiential learning.

Methods

The eight questions that are included in the The Corvallis School District Online Nutrition Education Parent Survey were developed during the Fall of 2015 by Simone Frei, Candace Russo, Casey Bennett, and Gerd Bobe of the Linus Pauling Institute's Healthy Youth Program. The full Corvallis School District Online Nutrition Education Parent Survey can be found in **Appendix E**.

The Healthy Youth Program obtained a Corvallis School District (CSD) Research Project Form, that required answers to a number of questions specific to the research project, which can be found in **Appendix F**. After completion of this form, principals at thirteen of the fourteen schools in the CSD were approached via email to participate in the survey, and were sent the CSD Research Project Form. Seven of the thirteen schools that were approached decided to participate in the survey, and some consented with their signature electronically, while others requested in-person meetings with Healthy Youth Program staff to learn more about the survey. Once the signatures of the principals of all participating schools were obtained, the CSD Research Project Forms were sent to the District Office to receive the signature of the superintendent.

After receiving the support and permission from the participating schools, as well as the Corvallis School District, the proposal was submitted to Oregon State University's Institutional Review Board for approval, which was granted in Winter 2016.

The survey questions were then translated to Spanish, in the hopes that this would broaden the reach to the substantial Hispanic population in the Corvallis School District. Both English and Spanish versions of the electronic survey were sent to the participating schools to be distributed via their electronic parent listservs. Responses were automatically sent directly to the survey administrators at the Healthy Youth Program. After two weeks, the survey was sent out to parents of participating schools as a reminder. The survey was open for a total of four weeks, and closed in April 2016.

Participants

Thirteen out of the 14 schools in the Corvallis School District (CSD) were contacted with the opportunity to participate in the survey. To ensure that the most accurate picture of the CSD was obtained, almost all schools were sought out, and the status of their school garden did not play a role in the selection process. Seven Corvallis schools decided to actively participate: two high schools (College Hill High School, Crescent Valley High School), one middle school (Linus Pauling Middle School), and four elementary schools (Adams Elementary School, Hoover Elementary School, Jefferson Elementary School, and Lincoln Elementary School). While these are the schools that agreed to actively participate, data was received from parents and guardians who also had children at non-participant schools in the CSD.

Results

Responses were received from 379 parents and/or guardians, who represented a total of 494 individual students in the Corvallis School District. Only one completed Spanish survey was received. One hundred and fifty-seven participants

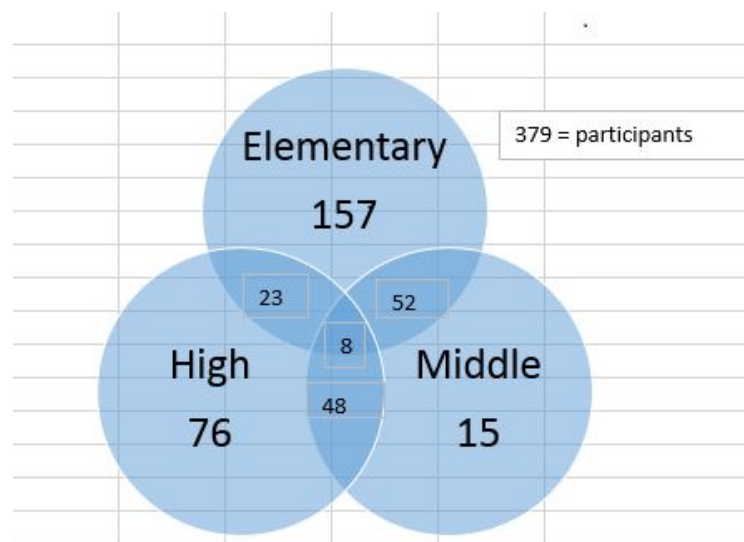


FIGURE 3- Survey Participants

only had children in elementary schools, 52 had students in elementary and middle school, and 32 had students in elementary and high school (FIGURE 3). Fifteen participants had students in middle school only, and 48 had students in middle and high school (FIGURE 3). Seventy-six participants only had students in high school, and 8 participants had students elementary, middle, and high school (FIGURE 3). A breakdown of number of participants per school, both participating and not, can be found in

Appendix G.

For the purposes of this paper, I have chosen to focus only on the survey questions related to Garden Education; the results of these questions can be found in

Appendix H.

Ninety percent of participants stated that they believed that school gardens enriched their child's educational experiences, with only 1% of participants saying that they did not hold that belief, and the remaining 9% were not sure. Eighty-seven percent

of participants noted that their child already had a garden at their school, or that they would like to have one. Ninety-three percent of participants stated that they would like garden education to be offered at their child's school, and the most popular answer for how they would like to see garden education offered, was via the curriculum, with 51%. The top three learning opportunities that participants wanted their child to experience were: hands-on science lessons, education about how to grow fruits and vegetables, and education on where their food comes from.

For two of the questions, there was an option to select a fill-in, narrative, option of "other (please specify)." Please see a compilation of these answers in **Appendix I**.

Discussion

Overall, the support of school gardens, and the inclusion of garden education in some form was very strong. The support of integrating garden education into the curriculum was not nearly as strong as I was anticipating. However, I think that this may have been partially due to the lack of clarity, or background information that was provided. The intent behind the question about curriculum was rooted in the idea of having garden curriculum integrated into the current, existing curriculum so as to enhance it. However, that question could have been interpreted as replacing current curriculum with garden curriculum. The fact that 85% of participants wanted to see school gardens utilized for hands-on science lessons, yet only 51% of participants wanted to see garden education as part of the school curriculum, further supports my conclusion that there was misinterpretation of the question.

Now that data have been collected on what parents and guardians would like to see in terms of garden education and school gardens, collecting data from the teachers and support staff would be a next logical step. Meeting the teachers where they're at, while fulfilling the expectations of the parents and guardians, might be the key to developing a more sustainable school garden program in the Corvallis School District.

CHAPTER 5

PROPOSED RECOMMENDATIONS AND NEXT-STEPS

Best Practices

Based on the three case studies that were explored in this paper (The D.C. Healthy Schools Act of 2010, Santa Cruz City School District, and San Francisco Unified School District), I have identified the following best practices and program characteristics that contribute to a sustainably integrated school garden program:

- Have a dedicated School Garden Coordinator at each school garden site, and ideally, one at the school district level as well. This person should not be a teacher at the school, but someone who is solely dedicated to the school garden. For the three examples that were explored this looked very different: a full-time teaching position, a part-time garden educator/coordinator, and a full-time AmeriCorps service member.
- Integrate the use of the school garden into a larger “school-food” environment, so that connections are made in the garden, in the classroom, and in the cafeteria. This should be included in both local and school district wellness policies with concrete goals that can be achieved in a feasible amount of time. Changing culture doesn’t happen instantaneously, so strategic, and incremental changes will be the most successful and sustainable.
- Integrate garden education into existing curriculum instead of a separate garden curriculum.

- Provide extensive trainings for teachers to learn how to utilize the garden space, and how to teach in an outdoor setting.
- Develop a funding model that is not based off of grants and/or donations, but is included in school district and/or city budgeting, and is consistent across all schools.

Recommended Next-Steps for the Corvallis School District

Based on the case studies and the data collected in the Corvallis School District Parent Nutrition Education Survey, I would propose approaching the School Board with three goals:

1. Develop a holistic wellness policy for the Corvallis School District, which include nutrition standards, farm to school programs, and environmental sustainability standards alongside school-garden policy with the ultimate goal of a sustainable structure for promoting a healthy school district. Whereas many schools have active Wellness Committees, there are no wellness policies being developed at the school level. Collaborations between community partners and the school district and setting quantifiable and achievable goals, will be crucial to develop holistic wellness policies.
2. Develop a funding plan for one School Garden Coordinator position at the district level. Right now there are strong leaders at most of the school gardens in Corvallis, but there is a lack of consistency, and no clear direction for them to be moving towards a common goal. Having one person dedicated to provide

leadership on the district level will be necessary to build a sustainable and integrated model.

3. Develop lesson plans that incorporate school garden education, nutrition education, and general food and cooking education into the general science, math, literature, humanities, and health curriculum. Collaborations between community partners and school teachers will be necessary to develop sustainable lesson plans. Having a paid Garden Coordinator/Educator at every school garden will be needed so that school gardens can be integrated into the curriculum.

Currently, school gardens in the Corvallis School District are siloed, and not integrated into the system of the school district. This has resulted in disconnects on all levels, including personnel, curriculum, and vision. Considering school gardens as a tool to be utilized for experiential learning opportunities in a larger movement to change the school-food environment, will help to create a more sustainable system.

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Appendix A- Garden-Based Curriculum Examples



Catching the Rain!

Reference: Adapted from *Measuring Rain* - Corvallis School District second grade Air and Weather Science Unit

Overview: Students will measure rainfall in the school garden using a rain gauge.

Subject area: Science, Math

Grade level: 2nd

Objective: Students will be able to identify factors that cause rainfall variations in the atmosphere and then measure accumulated rainfall in the school garden.

Next Generation Science Standards:

K-ESS2 Earth's System's

- **K-ESS2-1.** Use and share observations of local weather conditions to describe patterns over time.

Oregon Common Core State Standards for Mathematics:

2.MD Measurement and Data

- **2.MD.1** Measure the length of an object by selecting and using appropriate tools such as rulers, yardsticks, meter sticks, and measuring tapes.

Prep time: 15 minutes

Lesson time: 30 minutes

Materials needed:

- Rain gauge
- White board and markers
- Paper and pencils

Space needed: School Garden

Staff needed: 1-2

Preparation steps: One week before the lesson, place the rain gauge in the desired area of the garden for later recording by students.

Presentation Steps:

In the classroom:

1. Ask students:
 - *What kind of weather do we often have in the winter? (rain, colder temperatures, fog)*

- *When we see lots of clouds in the sky, what kind of weather can we usually expect? (rain, snow, hail)*
- *What do the clouds look like that bring rain? (cumulus or stratus clouds; gray and cover the sky)*

2. Discuss the following with students:

Sometimes clouds bring more rain or snow than other times. Today, we are going to the garden to measure how much rain we've received in the past week. How do you think we can measure the rainfall? (With a rain gauge) How do you think a rain gauge works? (Point out the measuring lines, if you have one in the classroom, or draw an example on the board). Explain that the container catches falling rain. As more rain falls, the water level goes up. The scale on the outside measures how much rain has fallen.

- *Ask students, how much do you predict that it has rained in the last week? Write predictions on the board.*
- *Are there certain areas outside that you think it might rain more than others?*

In the garden:

3. Show students the rain gauge and help the students measure and record the rainfall.

4. After the rainfall is measured, gather the class together and ask:

- *How does rainfall affect the living and non-living things in the garden?*
- *What do you think will happen to our plants if they don't get enough rain? (They won't grow or they will die, they will be more susceptible to pests and diseases, they won't have as many nutrients, etc.)*
- *What do you think will happen to our plants if they receive too much rain? (They won't grow or will die, they will be more susceptible to pests and diseases, they won't have as many nutrients, etc.)*



A Garden of Opposites

Adapted from: Life Lab “Six of One, Half Dozen of the Other” from *The Growing Classroom*

Overview: Students find and classify contrasting objects in the garden, using multiple senses.

Subject area: Science

Grade level: 1st-2nd

Next Generation Science Standards:

2-PS1. Matter and its Interaction

- **2-PS1-1.** Plan and conduct an investigation to describe and classify different kinds of materials by their observable properties.

English Language Acquisition Common Core Standards:

- **1.L.5 ELA.** With guidance and support from adults, demonstrate understanding of relationships and nuances in word meanings.
- **1.L.5.a. ELA.** Sort words into categories to gain a sense of the concepts the categories represent.
- **1.L.5.c ELA.** Identify real-life connections between words and their use.

Objectives: Students will be able to identify and classify objects in the garden.

Prep time: 30 minutes

Lesson time: 40 minutes

Materials needed:

- One egg carton per group of three students
- Permanent markers and/or sticky notes to write vocabulary words

Space needed: School Garden

Staff needed: 1

Preparation steps:

On the bottom of each egg carton, write two opposite words (antonyms) describing the quality of a garden object.

Examples (in English and Spanish):

- Wet/dry = mojado/seco
- Rough/smooth = áspero/liso
- Dark/light = oscuro/luminoso
- Dull/colorful = mate/ de colores vivos
- Scented/unscented = huele/ no huele
- Heavy/light = pesado/ligero

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- Soft/Hard = suave/duro
- Sweet smell/strong smell = olor dulce/ olor fuerte
- To discourage unsupervised tasting, avoid opposites that refer to taste.

Presentation steps:

1. Discussion with the whole class: What is an opposite? What are the five senses? What senses can we use to explore opposites in the garden? In this activity, you will be searching for objects that have a specific quality, and those that have the opposite quality. What are some examples of opposites?
2. Divide the class into groups of three. Tell the class that each group will get a special collecting container (egg carton) in which to collect 12 items. Each group will have a different set of objects that they will be collecting.
3. Demonstrate how the opposites should be placed in the carton, with six of each category in a long row. On the bottom of the carton are secret words that tell what category of objects to collect.
4. Distribute the cartons to each group and give the students time to read and comprehend their words.
5. Remind students to handle everything gently and to take only small specimens. Each one should fit in the egg compartment!
6. Students should spend approximately 20 minutes collecting.
7. Gather the entire class together again. Each group will present the contents of their egg cartons without revealing to the other students what the words are on the bottom. See if the students can guess the opposite words based on what the group collected.

Conclusion: Ask students which items felt the scratchiest, looked the most colorful, had the strongest scent, etc.? How did they find objects for each category of opposite words? Ask each group what was their best collected example.

Appendix B- D.C. Office of the State Superintendent of Education School Garden Grant

Program-School Garden Coordinator Position Responsibilities

- Grantees must establish a School Garden Coordinator (SGC) position to oversee day-to-day operations of the school garden. The SGC must:
 - Have previous experience working in school gardens.
 - Participate in all School Wellness Committee meetings.
 - Manage the day-to-day operation of the proposed school garden program including program management, technical support, and instruction.
 - Collaborate with at least five classroom teachers to plan and deliver at least twenty garden-based lessons using curriculum that is aligned to relevant standards.
 - Partner with the food service vendor, to plan and implement at least ten cafeteria-based activities including, but not limited to, taste tests, cooking demos, or produce displays.
 - Participate in four full-day trainings which take place during DCPS professional development days.
 - Engage one entire grade level in at least one Meaningful Watershed Educational Experience (MWEE).
 - Engage the school community to increase the scope of the school garden as an educational resource.
 - Facilitate their school's participation in Growing Healthy Schools Month (October) and Strawberries and Salad Greens Day (May), sponsored by OSSE.
- Maintain a healthy school garden using sustainable agricultural practices as defined by the Healthy Schools Act and safety protocol as outlined in the School Garden Safety Checklist here: <http://osse.dc.gov/node/1070112>.

Appendix C- Santa Cruz Elementary School District Measure P – Elementary School Tax

VOTER'S PAMPHLET MEASURES, ANALYSES AND ARGUMENTS <small>(whichever is applicable to your ballot)</small> <small>Arguments in support of, or in opposition to, the proposed laws are the opinions of the authors.</small>	
<p>SANTA CRUZ CITY ELEMENTARY SCHOOL DISTRICT</p> <div style="border: 1px solid black; padding: 5px; margin: 10px 0;"> <p>P To reduce class size in all elementary grades, support achievement in science, reading, writing, and the arts, and fund school libraries and literacy instruction, shall Santa Cruz City Elementary School District continue its expiring parcel tax for nine years at an annual rate of \$105/ parcel, exempting parcels owned/ occupied by senior citizens (65+)? An independent oversight committee will audit spending, with every dollar staying in this community to support local elementary schools and no funds used for administrator salaries.</p> </div> <p>FULL TEXT OF BALLOT MEASURE P</p> <p>Santa Cruz City Elementary School District Small Class Size and Academic Achievement Act</p> <p>To provide revenue that cannot be taken by the State and will remain in our community to reduce class size in all elementary grades and enhance elementary student achievement in science, reading, writing and the arts, shall the Santa Cruz City Elementary School District continue its expiring education parcel tax for a period of 9 years, beginning July 1, 2008, at a rate of \$105 per year on each assessor's parcel located within the Santa Cruz City Elementary School District?</p> <p>To this end, funds raised by this parcel tax shall be used to strengthen and enrich elementary academic programs by means such as:</p> <ol style="list-style-type: none"> providing the local funding for class size reduction (K-3), which is then matched more than six-fold by the state, and preventing a 60% increase in class size in Kindergarten, First, Second and Third Grades; providing local funding for class size reductions in grades 4-5, so that classes contain a maximum of 27 students per class on average, rather than 32; funding elementary school science instruction; providing early literacy instruction programs for elementary students and funding pre-kindergarten programs; retaining; and retaining credentialed librarians, library assistants, teachers and other employees; and providing arts education teachers and supplies, including music, performing and visual arts. <p>The School District's expiring parcel tax for elementary education began in 2003 and has been collected at the flat rate of \$81 per parcel per year since then. This Measure will extend the expiring parcel tax for nine years, beginning July 1, 2008, at the flat rate of \$105 per year, for each assessor's parcel within the Elementary School District (grades K-6). A parcel is defined as any unit of land in the District that now receives a separate real property tax bill from Santa Cruz County. All property that would otherwise be exempt from property taxes will also be exempt from the imposition of said qualified special tax.</p> <p>An exemption from the tax will be made available to each individual in the District who will attain 65 years of age prior to July 1 of the tax year, owns a beneficial interest in the parcel, and uses that parcel as his or her principal place of residence. Applications for such senior exemptions shall be made to the District on or before July 1, 2008, or July 1 of any succeeding tax year. Any one application from a qualified applicant will provide an exemption for the parcel for the remaining term of the tax so long as such applicant continues to own and use the parcel as his or her principal residence.</p> <p>In addition to the accountability measures required by law, the independent community oversight committee that has been appointed by the Board of Education to oversee all expenditures funded by the existing parcel tax will continue to audit all funds in order to ensure that said funds are spent wisely and used only for the purposes approved by the voters. The oversight committee shall monitor the expenditures of these funds by the District and shall report on an annual basis to the community on how these funds have been spent.</p> <p>None of the funds raised by the parcel tax will be used for administrator salaries.</p>	<p>IMPARTIAL ANALYSIS BY COUNTY COUNSEL MEASURE P</p> <p>If this measure is approved by at least two-thirds of those voting on it, the Santa Cruz City Elementary School District (the "School District") will be authorized to levy a special tax assessment on real property in the amount of \$105 per year on each assessor's parcel within the School District for a period of nine years. The proceeds of the special tax, if approved, may be used only for the purposes set out in the text of Measure P in this pamphlet and include funding for school libraries and reduced class size in all elementary grades, and support for science, reading, writing, arts and literacy instruction.</p> <p>In June 2003, the voters approved a special parcel tax on parcels within the Santa Cruz Elementary School District at the rate of \$81 per year for a period of five years, expiring on June 30, 2008. The special tax assessment authorized by this measure, if approved, would begin July 1, 2008 and continue until June of 2017.</p> <p>In accordance with State law, the School District Board shall deposit the proceeds of the special tax into a designated account. An annual written report shall show the amount of the special tax collected and expended, and the status of projects to be funded from these proceeds. Additionally, the independent community oversight committee appointed by the School District Board for the parcel tax approved by the voters in 2003 will continue to monitor expenditures and report annually.</p> <p>The special tax shall be collected in the same manner as those property taxes which are based upon property value. An exemption from the tax will be granted for any parcel owned by one or more persons 65 years of age or over who occupy the parcel as a principal residence, if the owner makes a one-time application for exemption.</p> <p>A "yes" vote is to approve imposition of the special parcel tax. A "no" vote is against imposition of the special parcel tax.</p> <p>s/ DANA McRAE, COUNTY COUNSEL</p>

VOTER'S PAMPHLET MEASURES, ANALYSES AND ARGUMENTS (whichever is applicable to your ballot) Arguments in support of, or in opposition to, the proposed laws are the opinions of the authors.	
<p align="center">ARGUMENT IN FAVOR OF MEASURE P</p> <p>Small class sizes make all the difference for students in our Santa Cruz City Schools Elementary District. Individual attention from talented teachers helps students achieve in school. It helps them learn science, reading, writing, mathematics, the arts and other crucial subjects.</p> <p>State and federal funding alone does not support small classes and the high-quality academic programs we need for our kids.</p> <p>That's why Santa Cruz voters approved a parcel tax in 2003: to support academic enhancements that give our local students a high-quality education.</p> <p>This local funding that protects our schools from state budget cuts will end: unless voters choose to renew it by voting Yes on Measure P. Measure P supports small classes, science education, early literacy instruction, the arts, libraries and much more.</p> <p>Without Measure P, local elementary schools will have to cut nearly \$1,250,000 per year needed to maintain high-quality educational programs.</p> <p>Without Measure P, class sizes will increase by 50% from Kindergarten through 3rd grade, meaning crowded classrooms and less individual attention for students.</p> <p>Vote Yes on Measure P to:</p> <ul style="list-style-type: none"> • Ensure small classes in Kindergarten through 3rd grade—a maximum of 20 students • Reduce class sizes from 32 to an average of 27 students in the other elementary grades • Enhance school science instruction • Provide early literacy instruction • Support school library programs • Provide arts education teachers and supplies <p>Every dollar from Measure P will be spent in our local schools to improve elementary education. Not a single dime will go to the state or to administrator salaries.</p> <p>Measure P includes community-based citizen oversight, ensuring all funds are spent wisely to maintain excellent education in our schools, and it allows an exemption for senior citizens.</p> <p>Help make sure local students get the quality education they need to succeed—Vote Yes on Measure P.</p> <p>s/ John Laird State Assemblymember</p> <p>s/ Sharon Maxwell 3rd Grade Teacher at DeLaveaga Elementary</p> <p>s/ George Ow, Jr. Businessperson</p> <p>s/ Patty Zoccol Former Westlake Elementary PTA President, Business Owner</p> <p>s/ George "Bud" Winslow Former School Superintendent, Senior Senator</p>	<p align="center">NO ARGUMENT AGAINST MEASURE P WAS FILED.</p>

Appendix D- Proposition A: School Bonds

School Bonds

A

PROPOSITION A

Shall the San Francisco Unified School District repair and rehabilitate its facilities to current accessibility, health, safety and instructional standards, replace worn-out plumbing, electrical and other major building systems, replace aging heating, ventilation and air handling systems, renovate outdated classrooms and other training facilities, construct facilities to replace bungalows, by issuing \$295 million in bonds, at legal interest rates, with guaranteed annual audits, citizens' oversight and no money for school administrators' salaries?

YES  
NO  

Impartial Analysis

by the Ballot Simplification Committee, approved by the City Attorney

THE WAY IT IS NOW: The San Francisco Unified School District maintains over 160 school buildings. The District builds, maintains and upgrades its schools using money from sources including local taxes and fees, State funds and voter-approved bond measures. The District is eligible for additional money from the State to build or upgrade its schools if the District provides some of its own money for the projects. The District has adopted a Facilities Master Plan to improve existing facilities, and enhance safety and accessibility.

THE PROPOSAL: Proposition A would authorize the District to borrow \$295 million (\$295,000,000) by issuing general obligation bonds to complete some of the projects in the District's Facilities Master Plan. The District would use this money to:

- Renovate classrooms, kitchens and bathrooms;
- Improve accessibility for students with disabilities;
- Correct environmental hazards such as asbestos;
- Make health and safety repairs to electrical and plumbing systems;
- Replace bungalows; and
- Rebuild outdoor areas for hands-on environmental learning.

The District would set aside \$15 million (\$15,000,000) to update a building for the School of the Arts. This money would be spent only if additional public and/or private funds are raised for this purpose.

The District could undertake some of these projects only if it receives additional bond money approved by State voters. Proposition A requires the District to create a Citizens' Oversight Committee to review and report to the public on how the money approved by this measure is spent.

Principal and interest on general obligation bonds are paid from property tax revenues. Proposition A would require an increase in the property tax. A 55 percent majority vote is required to approve school bonds.

A "YES" VOTE MEANS: If you vote "Yes," you want the School District to issue \$295 million (\$295,000,000) in general obligation bonds to repair and improve some of its schools.

A "NO" VOTE MEANS: If you vote "No," you do not want the School District to issue \$295 million (\$295,000,000) in general obligation bonds for these purposes.

Tax Rate Statement on "A"

City Controller Edward Harrington has issued the following statement on the fiscal impact of Proposition A:

Based on the best estimates of the San Francisco School District, should the proposed \$295 million in bonds be sold and issued, the annual costs over the life of the bonds would vary as follows:

- In fiscal year 2004-05, following issuance of the first series of bonds, the estimated annual costs of debt service would be \$5.67 million and result in a property tax rate of .60¢ per \$100 of assessed valuation (or \$6.04 per \$100,000 of assessed valuation).
- In fiscal year 2012-13, following issuance of the last series of bonds, and the year with the highest tax rate, the estimated annual debt service would be \$26.5 million and result in a property tax rate of 2.83¢ per \$100 of assessed valuation (or \$28.32 per \$100,000 of assessed valuation).
- The best estimate of the average tax rate from fiscal year 2004-05 through 2031-32 is 1.99¢ per \$100 of assessed valuation (or \$19.86 per \$100,000 of assessed valuation).

These estimates are based upon projections and estimates only, which are not binding upon the School District. Such projections and estimates may vary due to variations in timing of bond sales, the amount of bonds sold at each bond sale, market interest rates at the time of each bond sale, and actual assessed valuation over the term of repayment of the bonds. Hence, the actual tax rates and the years in which such rates are applicable may vary from those presently estimated above.

Based on the School District's estimates, the highest estimated increase in annual property taxes for the owner of a home with an assessed value of \$300,000 would amount to approximately \$82.98.

How "A" Got on the Ballot

On July 17, 2003, the San Francisco Board of Education voted 7 to 0 to place Proposition A on the ballot.

The members of the Board of Education voted as follows:
Yes: Members Chin, Cruz, Kelly, Lipson, Mar, Sanchez, and Wynn.

State law under Proposition 39 allows a school district to place a school facilities bond measure on the ballot in this manner.

THIS MEASURE REQUIRES 55% AFFIRMATIVE VOTES TO PASS.

ARGUMENTS FOR AND AGAINST THIS MEASURE IMMEDIATELY FOLLOW THIS PAGE. THE FULL TEXT BEGINS ON PAGE 32.
SOME OF THE WORDS USED IN THE BALLOT DIGEST ARE EXPLAINED ON PAGE 28.

38-CP29-364291-NE



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School Bonds

A

OPPONENT'S ARGUMENT AGAINST PROPOSITION A

ONE \$295,000,000 BOND ISSUE TODAY – EXPECT MORE COMING DOWN THE TRACKS EACH FUTURE LOCAL ELECTION:

While the San Francisco Unified School District has seriously mishandled its prior bond issues, spending lots of money on paying administrators that should have gone for improvements, they have no shame.

Now the School District wants **MORE** bonds.

Have faith in the School District!:

Forget all you have heard about that 2001 FBI investigation.

Forget about School District official Desmond McQuoid, "who pleaded guilty last year to defrauding the [school] district out of \$200,000." [See July 15, 2003 "Independent", page 2A.]

Sorry, a lot of us have very little faith in the San Francisco Unified School District.

The record of the School District speaks for itself...especially when we discuss money problems.

In addition, many Asian and other parents objected to the School District's so-called "school-placement process...after their children were assigned to schools that were not in their neighborhood." [Again, see the July 15th "Independent".]

Vote **NO** on these and future School District bonds until major reforms occur.

Terence Faulkner, J.D.

Chairman, Golden Gate Taxpayers Association

Golden Gate Taxpayers Association

REBUTTAL TO OPPONENT'S ARGUMENT AGAINST PROPOSITION A

Proposition A Benefits All San Franciscans

Proposition A does more for our schools than just increase safety measures, it helps create a new day for our school district and improves the educational conditions for our children.

Proposition A will provide a \$15 million set aside for the School of the Arts, making it possible to begin to realize the dream of an arts high school in the Civic Center.

Proposition A will provide major investments in all high schools in every part of the city.

Proposition A will make our schools healthier and more environmentally sound.

Proposition A is supported by the community. Parents, teachers and school employees all support Proposition A because it will upgrade school facilities and improve learning conditions district-wide.

Proposition A is supported by both business and labor because all children in the school system will benefit.

Proposition A is supported by all major candidates for Mayor, because a superior school system provides a desirable city for everyone who lives and works here.

With mandated accountability, Proposition A requires an annual financial audit and creates a Citizen's Oversight Committee to review how the money is being spent. As the San Francisco school system continues to improve, this school bond is essential to the future of all of our children.

Please vote "Yes on Proposition A".

San Francisco Unified School District, Board of Education

Emilio Cruz, President

Eric Mar, Vice President

Commissioner Eddie Chin

Commissioner Dr. Dan Kelly

Commissioner Sarah Lipson

Commissioner Mark Sanchez

Commissioner Jill Wynn

Arguments printed on this page are the opinion of the authors and have not been checked for accuracy by any official agency.



Appendix E- Corvallis School District Online Nutrition Education Parent Survey

Qualtrics Survey Software

<https://oregonstate.qualtrics.com/ControlPanel/Ajax.php?action=GetSur...>

Corvallis School District Online Nutrition Education Parent Survey

The Healthy Youth Program, Linus Pauling Institute invites you to take part in a research study by filling out this parent survey. The goal of this research is to learn more about your interest in nutrition education, cooking/food preparation, and garden education being offered at your child(ren)'s school. This research will allow the Healthy Youth Program to better understand the level of interest among Corvallis School District parents and help guide future programming efforts.

This survey should take you no more than 3 minutes to complete. Participation in the survey is anonymous and voluntary. You may choose not to participate or to stop at any time.

If you choose to participate, your responses will contribute valuable information for further development of effective nutrition, cooking, and garden-based programming for all Corvallis School District students.

If you have any questions about this research project, please contact Gerd Bobe, Principal Investigator, at (541) 737-1898. If you have questions about your rights or welfare as a participant, please contact the Oregon State University Institutional Review Board (IRB) Office, at (541) 737-8008 or by email at IRB@oregonstate.edu.

For other questions related to this research, please contact the co-investigators:

Candace Russo
Program Manager
541-737-8014
candace.russo@oregonstate.edu

Casey Bennett
Program Coordinator
541-737-8014
casey.bennett@oregonstate.edu

Thank you for your time and consideration.

-
- ☐ I agree to participate in this research
 - ☐ I do not agree to participate in this research

I have a child(ren) in:
Please select all that apply.

- ☐ Adams Elementary School
- ☐ Cheldelin Middle School
- ☐ College Hill Alternative High School
- ☐ Corvallis High School
- ☐ Crescent Valley High School
- ☐ Franklin Elementary School
- ☐ Garfield Elementary School
- ☐ Hoover Elementary School
- ☐ Jefferson Elementary School
- ☐ Lincoln Elementary School
- ☐ Linus Pauling Middle School
- ☐ Mountain View Elementary School
- ☐ Wilson Elementary School

I would like nutrition education to be offered at my child(ren)'s school. Please select all that apply.

- ☐ Yes, as part of the school curriculum
- ☐ Yes, as an elective (middle school and high school only)
- ☐ Yes, as an afterschool activity
- ☐ No
- ☐ Not sure
- ☐ Other (please specify)

I would like cooking/food preparation classes to be offered at my child(ren)'s school. Please select all that apply.

- ☐ Yes, as part of the school curriculum
- ☐ Yes, as an elective (middle school and high school only)
- ☐ Yes, as an afterschool activity
- ☐ No
- ☐ Not sure
- ☐ Other (please specify)

I would like garden education to be offered at my child(ren)'s school. Please select all that apply.

- ☐ Yes, as part of the school curriculum
- ☐ Yes, as an elective (middle school and high school only)
- ☐ Yes, as an afterschool activity
- ☐ No
- ☐ Not sure
- ☐ Other (please specify)

I would like to have a school garden at my child(ren)'s school

- ☐ There already is a school garden
- ☐ Yes
- ☐ No
- ☐ Not sure

I believe that school gardens enrich children's educational experiences

- ☐ Yes
- ☐ No
- ☐ Not sure

I would like my child to learn the following in a school garden program:
Please select all that apply.

- ☐ Where their food comes from
- ☐ How to grow fruits and vegetables To eat more
- ☐ fruits and vegetables Environmental stewardship
- ☐ and sustainability Hands-on science lessons
- ☐ Ways to give back to their school and community
- ☐ To spend time outdoors
- ☐ Other (please specify):

Appendix F- Corvallis School District Research Project Form



CORVALLIS SCHOOL DISTRICT 509J

Research Projects

Board policy regarding requests for permission to conduct research projects in the District will be based on the following considerations. Please respond to these considerations either on this sheet or attach your responses. Forward the completed form to the building principal(s) of the school(s) where you desire to conduct the research project.

- 1) Describe the purpose of the project, give an estimate of the timeline, and indicate the school(s) and class level(s) to be involved.
- 2) Describe the time, resources, and energies of District personnel who may be involved in the project.
- 3) Describe the value of the research project to the educational goals in general and those of the District in particular.
- 4) Describe how the project may serve the needs of the district, particularly in the areas of learning, instruction, leadership, and school facilities.
- 5) Describe the degree to which such project would interfere with normal classroom operations.

Name of person(s) Requesting Research Project: CASEY BERNHART and Candace Russo

Mailing Address: Healthy South Program, Linus Pauling Institute,
301 Linus Pauling Science Center, Corvallis, OR 97331

Phone Number(s): (541) 757-8044

Date: NOV. 9, 2015

- 1) Applicant completes form and forwards to building principal.
- 2) Building principal will sign below indicating *acceptance or non-acceptance* of project.
- 3) Building principal forwards signed form to Assistant Superintendent for final approval.

Building Principal Signature: _____ Date _____

Project is accepted

Project is **not** accepted

Approved by Assistant Superintendent: _____ Date _____

\\jess\slsuper\policy\research projects 12/06

1) Describe the purpose of the project, give an estimate of the timeline, and indicate the school(s) and class level(s) to be involved.

The Healthy Youth Program, Linus Pauling Institute has been providing nutrition, cooking, and garden-based education to youth in the Corvallis community, both in-school and after-school, since 2009. This winter, we plan to conduct an anonymous online survey of Corvallis School District (CSD) parents to find out more about their interest in nutrition education, cooking education, and garden education being offered at their child's school. This online survey will allow the Healthy Youth Program to better understand the level of interest among parents and help guide future programming efforts.

We plan to invite all parents from participating CSD schools (elementary, middle, and high schools) to participate in our anonymous online survey. We plan to send out an email with a link to our survey during winter term 2016. Two weeks later, we will follow-up with a reminder email with a survey link.

The parents' responses will contribute valuable information for further development of effective nutrition, cooking, and garden-based programming for all CSD students.

2) Describe the time, resources, and energies of District personnel who may be involved in the project.

The participating schools will be asked to send the initial and follow-up emails (explaining the nature of the study and including a link to the online survey) to their students' parents. The two emails will be provided by the Healthy Youth Program.

3) Describe the value of the research project to the educational goals in general and those of the District in particular.

In the CSD's ongoing *Vision for Education* document, an emerging theme appears to be the desire by the community for increased experiential learning. The *Vision for Education* document points out the community's desire for "students at all levels [to] have frequent opportunities to learn beyond textbooks, applying what they are learning to real-world situations. Students are given opportunities to connect individual interests to learning at school." The Healthy Youth Program's nutrition, cooking, and garden-based education lessons, classes, and after school clubs do just that. In an effort to ensure that our programming serves CSD students to the best of our ability, we plan to conduct this online survey as a means to gauge community support and interest, and to help tailor our future programs.

4) Describe how the project may serve the needs of the district, particularly in the areas of learning, instruction, leadership, and school facilities.

School gardens and nutrition education directly connect to all CSD Schools' wellness policies and their efforts to help CSD students develop healthy lifestyle habits. Our partnership with Lincoln Elementary School where we teach garden-based lessons to all classes in the school, maintain their school garden, and lead after school garden clubs, helped the school earn a State Wellness Award from the Oregon Department of Education. Results from these surveys will help us better tailor future lessons for all the CSD schools. Further, the Healthy Youth Program maintains three of the CSD's school gardens, directly removing a burden from the school facilities staff.

5) Describe the degree to which such project would interfere with normal classroom operations.

This survey will not interfere with normal classroom operations.

Appendix G- Survey Responses per School

CSD Schools * = Participating Schools	Number of Responses
Adams Elementary School*	17
Franklin Elementary School	11
Garfield Elementary School	5
Hoover Elementary School*	75
Jefferson Elementary School*	58
Lincoln Elementary School*	62
Mountain View Elementary School	4
Wilson Elementary School	6
Cheldalin Middle School	42
Linus Pauling Middle School*	73
Corvallis High School*	19
Crescent Valley High School*	119

Appendix H- Survey Results (Garden Education Questions ONLY)

I would like to have a school garden at my child(ren)'s school	
There is already a school garden	161
Yes	165
No	13
Not sure	37

I believe that school gardens enrich children's educational experiences	
Yes	341
No	4
Not sure	29

I would like garden education to be offered at my child(ren)'s school. Please select all that apply.	
Yes, as part of the school curriculum	195
Yes, as an elective (middle school and high school only)	165
Yes, as an afterschool activity	125
No	10
Not sure	15
Other (please specify)	9

I would like my child to learn the following in a school garden program: Please select all that apply.	
Where their food comes from	301
How to grow fruits and vegetables	309
To eat more fruits and vegetables	275
Environmental stewardship and sustainability	300
Hands-on science lessons	321
Ways to give back to their school and community	261
To spend time outdoors	298
Other (please specify):	26

Appendix I- Fill-in/Narrative Answers

I would like Garden Education to be offered at my child(ren's) school:

Other (please specify):

- Special projects
- Yes school activity in elem elective for credit in HS no none of food should be only after school
- Elementary school only
- As both curriculum and after school
- As a club
- by integrating core curriculum and science into the lesson plan
- As part of the school curriculum but ONLY if the school day is extended to ensure adequate time for all subjects. I don't want this to displace recess, art, PE or music.

If someone developed a unique curriculum that could be integrated to examine energy balance in the context of PE, soil science in the science education, healthy eating as it relates to health, gardening as art, etc. that would be innovative and wonderful

- As long as the curriculum changes each year. My children have done the same garlic lab each year and have mentioned that it is boring. Not sure if this is your program or the teachers, but it needs to change.
- even in elementary school

I would like my child to learn the following in a school garden program:

Other (please specify) (26 responses):

- how to work cooperatively
- Bring their fresh garden food into lunch at school instead of processed or soggy lettuce n brown bananas
- hard work
- The cost of producing food
- Beneficial insects such as bees for pollination.
- none. I want my kids to learn the "3R's" - I can teach cooking & gardening at home!! I certainly DO NOT want the state to indoctrinate my children on "environmental stewardship and sustainability" psychobabble! Especially using my tax dollars!!
- native birds, native plants
- All of the above!
- I would love for them to learn all of the above, but would be happy with even just a couple of items.
- My child does not need this but others might.
- Actually we are small farmers and the information that is taught is so false to how any of us live and grow that I would want to insure the information was balanced and truthful!
- The joy of watching something grow and caring about it and how to do the best thing for it

- To learn about self sufficiency
- Importance of organic gardening for our health and environment
- All apply
- sense of place. connecting with their location, the season
- Gardening may even provide technical training, enhancing employability. How to responsibly eat and grow food is vital citizenship knowledge, garden flowers and plants teaches appreciation for aesthetics as well as science & earth stewardship
- healthy eating habits and the results of eating a poor diet
- animals too
- soil science
- native plants, insects, birds
- to grow food to donate to food bank as community service
- The history of farming & food production in all cultures.
- composting

