

When You Garden, You Grow



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The benefits of installing and maintaining school gardens are well numerous and well documented. Research indicates that in addition to all of the benefits associated with increasing the attractiveness and utility of school grounds, school gardens facilitate cognitive, affective, behavioral, physical, interpersonal, and social learning (Passey, 2010). Luckily for me, Poly is an excellent location for such a project: it is a large school with the resources, green space, and community needed for such a project to be successful. The Environmental Club is very active at Poly, and members eagerly supported my initial overtures regarding installing and maintaining a school vegetable garden. Furthermore, as a teacher of biology, I see it as my responsibility to educate students not just about the specific learning indicators mandated by the state, but also about more practical biology, like how to distinguish a carrot from a weed! Finally, before my career in education, I worked for several years in the analytical soil laboratory of the Rutgers University Cooperative Extension, and was an executive member of the Rutgers Chapter of the Soil and Water Conservation Committee while an undergraduate there. These experiences made me aware of the vital and often overlooked importance of soil, and I am proud that this garden is a small step in preserving and protecting that vital resource.

In response to this need, in March, 2010, I led a team of students, teachers, and community members in converting several hundred feet of unused space in the Poly courtyard into a productive vegetable garden. I have advised and helped a team of students care for the



garden ever since, and continue to this day. In 2010 we began by “double digging” about 200 square feet of garden space, a labor-intensive but effective method for converting turf to productive garden space.. Then each year since then we have continued to keep the garden productive. I have formed a

student organization that typically has five to ten members. Each year the students vote for a president,

Figure 1: Summer Benefits!



vice-president, etc. Through this process I work to develop

students' leadership skills. Then, at the beginning of each year

we produce fliers and recruit new students to join. Although the

schedule is flexible, we meet weekly after school, except between

winter break and first semester exams. Additionally, during peak

growing seasons, we schedule Saturday work days to water,

weed, and harvest. Similarly, over the summer I set up biweekly times when students and I meet at the

school to do tend the plot. Though attendance is lower over the summer, students that come are well

rewarded with the tomatoes, eggplants, and peppers that the others miss out on!

The garden and the associated club provide access to soil and plants that many students in an urban school district would not otherwise have access to. The club has been the beginning of several enduring friendships among students, and it is a great place for me and the students alike to talk about diverse issues relating to the school, their progress, and whatever else might come up. In this way, it has been an excellent opportunity for me to mentor students in an informal way, and to have an opportunity to hear their thoughts, perspectives, and concerns about a wide range of issues. Of course, the garden is also a wonderful improvement over the blank turf it replaced, from an aesthetic perspective.

Finally, the garden is also a resource available for use in science inquiry. For example, student teams have conducted research on pea plant seed-pod color to determine if it is inherited in a Mendellian fashion (results were inconclusive). I have also used the garden to conduct some of my own plant-breeding experiments. Last year for example, I interplanted a variety of red dent corn (“Bloody Butcher”) with a typical sweet corn. An entirely new hybrid strain, with a mottled color pattern, was the result! In a different investigation, I once let all of the *Brassica* (cabbage, kale, broccoli, etc.) flower and seed in order to investigate their hybridization patterns. Students were interested in what the outcome of my “wild cabbage” experiment would be, but

Figure 2: Bloody Butcher x Country Gentleman F1 Hybrid



Unfortunately, the grounds maintenance workers were unable to distinguish them from weeds, and they met an untimely fate. Rather than be discouraged, I took this to as a reminder of the importance of the garden as an educational tool to help people learn what real food looks like.

This document includes two sources that illustrate the impact of the Poly Vegetable Garden. The first is a series of photographs I’ve collected over the years documenting some of the learning, gardening, and smiles. The second is a letter, written by a student who has been in a leadership position with the PVG for three years, describing what the garden means to him.

Picture Essay



























The following letter was written by the student leader of the Poly Vegetable Garden for school years 2012-13, 2013-14, and 2014-15. His time and activity in the club provided many opportunities for learning, many of which have nothing at all to do with standardized assessments, academic achievement, or college preparation, but are no less crucial. Although the club is excited for his entrance into college next year, and proud of the scholarships he has earned, we will nonetheless be sad to see him leave.

“Throughout my time at the Baltimore Polytechnic Institute my experiences in the gardening club has been one I will always cherish. It was the first club I ever joined during my high school carrier. To this day, it continues to be my most valued, the one I have contributed the most time to, and my absolute favorite overall. I have not only learned how to plant and turn over soil, but I have learned of the best methods to do so. I have learned the best time of year to plant given a specific plant, the little secrets in assuring successful germination of the seeds, the need for both nitrogen rich leaves and food rich in carbon to produce the best compost, , and the skills to project what I have learned as the club’s student president.

Just as Mr. Tomasino taught me of how to garden, so too have I passed that knowledge down to new members whenever I was needed to do so. I wanted others to join in on the satisfaction that growing plants in itself brought, not to mention the things you could do later on with the plenty of the harvest. Of course, nothing can grow without soil. Between the two buildings of the school lay the plot like an oasis amidst concrete and brick, surrounded by wooden borders to organize the space between the student plots with a large communal plot. The area was a liberating space, a place I could go to after school when I wanted to check up on the large gardening space, a place that for two years was the cap of my school week as the club was held every Friday. It is a friendly space, full of good conversation. It is a safe space, fostering an atmosphere of friendship. It is a place to meet new people, whether they be freshman, or senior.

In addition to fresh air and spring sun after school, I got the chance to work the muscles that had been at ease and stiffened by the school day. Over the course of spring we would plant cabbage, cauliflower, kale, onions, peas, lettuce, eggplants, tomatoes, hot peppers, and bell peppers. We even took the project into the summer, visiting the school once a week to make sure everything was watered, well kept, and to harvest the bounty of the crop. It was a wonderful thing to come home in the afternoon, with a tray of fresh produce. To make something out of vegetables and herbs that I myself planted with my own hands was a great, and ultimately delicious experience. It was this that made me want to plant from my home. Mr. Tomasino generously let me take seeds home to get started. Within a few months I had my little plot at home to further foster alongside the school plot, the passion to garden that fostered and bloomed at my school, in the gardening club, and because of a person whose passion for planting is true.”

Bibliography

Passey, R. M. (2010). *Impact of school gardening on learning*. Slough, UK: National Foundation for Educational Research.