The Design Your Own Park Competition: Empowering Neighborhoods and Restoring Outdoor Play on a Citywide Scale

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Abstract

The Design Your Own Park (DYOP) Competition is a collaboration between a university, a city, and a fundraising organization to empower neighborhoods and restore outdoor play at a citywide scale. The city of Binghamton (NY) makes vacant lots and other neglected spaces available for neighborhoods to turn into parks of their own design. Faculty and students from Binghamton University’s Binghamton Neighborhood Project facilitate the design and implementation process and also assess the impact of the project on the strengths and needs of the neighborhoods. The United Way of Broome County helps to procure funds for implementing the parks. Neighborhood groups are expected to help maintain their parks, providing a basis for ongoing interactions and relieving the city of maintenance costs. Neighborhoods that become organized in the context of DYOP are empowered to address other needs such as safety, education, health, and employment. Although the DYOP Competition is still in its first year and cannot yet be considered a proven success, it provides a science-based model for other cities to coordinate efforts and find win-win situations at a scale that would be impossible otherwise.
A unique collaboration between a university, a city, and a fundraising organization is taking place in Binghamton, New York. The project establishes a friendly competition among neighborhoods to create neighborhood parks of their own design. Binghamton is experiencing economic hardship, like most cities nationwide and especially in the northeastern United States, but it is rich in at least one respect—it has many vacant lots and other neglected spaces. By making these spaces available to neighborhood groups to create the park of their dreams, a liability can be turned into an asset.

Neighborhoods are typically not well organized for collective action. From the richest gated communities to the poorest ghettos, most people scarcely know their neighbors, but there is nothing like a common goal such as creating a neighborhood park to bring people together. Moreover, a burgeoning scientific literature on what makes groups function well or poorly can help neighborhoods become organized, along with good old-fashioned practical knowhow. A group of faculty at Binghamton University called the Binghamton Neighborhood Project provides the scientific expertise and their students provide an eager cadre of helpers.

Creating and maintaining parks requires money, of course, and city budgets are stressed to their limits, but people and organizations are still willing to give to good causes and the United Way is well organized to coordinate fundraising efforts. The United Way of Broome County has joined forces with the City of Binghamton and Binghamton Neighborhood Project to help turn the dream parks into reality. The fact that neighborhood groups are expected to maintain their parks as much as possible presents another win-win situation, relieving the city of maintenance costs and providing a basis for ongoing interactions for the neighborhood groups.

Binghamton’s Design Your Own Park (DYOP) competition in only a year old and cannot yet be called a proven success, but it still provides a potential model for other cities. In fact, it has already been recognized as one of nine (out of 450) shortlisted entries in the Philips Corporation’s Livable Cities Award ([http://www.because.philips.com/livable-cities-award](http://www.because.philips.com/livable-cities-award)), a global initiative “designed to generate practical, achievable ideas for improving the health and well-being of people living in cities”. The reason that the DYOP deserves this kind of attention, even before final proof of parks established throughout the city, is because of the scope of its vision and the scientific principles that have gone into its design.

**The Science Behind the Scenes of the Design Your Own Park Competition**

Many parks have been built by people simply coming together, without the help of scientists or a citywide program such as DYOP. The rationale of DYOP as a way to promote neighborhood parks seems clear enough without the need for scientific principles. Nevertheless, profound philosophical and scientific issues dwell
beneath the surface of intuitive understanding. Why do people cooperate under some circumstances and not others? Why is working together so fulfilling and productive under some circumstances, yet so tedious and counterproductive under other circumstances? What is it about a park that people regard as so important? These and other questions are so deep that they can be asked for all group-living species, not just our own. Scientists from a melting pot of disciplines, including evolutionary biology, economics, political science, sociology, anthropology, and psychology, are starting to provide answers that can be useful for real groups attempting to achieve a common goal, such as a single neighborhood park or a citywide program for promoting neighborhood parks. The DYOP competition is designed with the following scientific principles in mind.

1) The Importance of Allowing Local Groups to Manage Their Own Affairs: Elinor Ostrom made headlines in 2009 as the first woman to win the Nobel Prize in economics, but the reason that her work was recognized is even more noteworthy. Ostrom showed that groups of people are capable of managing their common resources, at least when certain conditions are met. This is in contrast to conventional economic wisdom, which holds that common resource situations invariably result in the tragedy of overuse and that the only solutions are to privatize the resource or to externally regulate it (Ostrom 1990, 2005; Poteete, Janssen and Ostrom 2010).

Ostrom and her associates have assembled a worldwide database of groups that attempt to manage common resources such as fish stocks, forests, pastures, groundwater, and irrigation systems. In all of these cases, people must coordinate their activities, refrain from short-term gain to achieve long-term sustainability, and work to provide common benefits at their own expense. There is always the potential of cheating by taking more than one’s share of the resource and less than one’s share of the work. Nevertheless, groups can be remarkably good at managing their common resources, sometimes for centuries, and can even have a good time doing it. Based on this worldwide database and theoretical principles based on political science, game theory, and evolutionary theory, Ostrom identified eight design features that enable groups to successfully manage their commons. Very briefly, these are 1) Well-defined groups; 2) Making costs proportional to benefits; 3) Consensus decision-making; 4) The ability to monitor good conduct; 5) Graduated Sanctions to punish transgressions; 6) Fast and efficient conflict resolution mechanisms; 7) Authority for local groups to manage their own affairs; and 8) interactions among local groups that reflect the same principles as interactions within groups.

Although Ostrom focuses her attention on groups that manage natural resources, the design features are equally relevant to any group trying to achieve a common goal—including creating a neighborhood park. The DYOP draws upon Ostrom’s work in two ways. First, it creates a valuable common resource for neighborhood groups in the form of a park. Second, it helps neighborhood groups acquire the design features through the judging criteria and facilitation process. It is
important to emphasize that even though the design features might seem highly intuitive, groups do not necessarily adopt them on their own, so that coaching and the incentives provided by the judging criteria are needed. See Wilson, Marshall, and Iserhoff (2011) for more on how Ostrom’s principles can be related to park building projects and neighborhood empowerment.

2) Harnessing the Motivating Power of Between-group Competition While Avoiding its Destructive Potential: We are inherently a group-living species and the motivation to compete with other groups is deeply ingrained in our psychology (Berreby 2008). This observation is familiar to all of us based on our common experience, including the obsession that so many people have for team sports, the tendency of young people to form into gangs, and violent between-group conflicts around the world. For the intellectually inclined, there are team competitions such as Science Olympiad, Odyssey of the Mind, and Mathletes. Science has done much to advance our knowledge of group psychology beyond what is obvious to everyone and this knowledge can be used to harness the motivating power of between-group competition while avoiding its destructive potential.

DYOP is designed as a friendly competition among groups. The competitive element is likely to cause groups to become more motivated and develop a greater sense of team spirit than if they were offered a private opportunity to develop their own park. The fact that all plans receiving an “excellent” rating will be implemented (to the extent that our fundraising allows), that the competition will be repeated, and that groups can freely borrow successful ideas from other groups keeps the competition friendly. DYOP is also designed to develop team spirit and pride at the level of the whole city as a model to be emulated by other communities.

3) Using Variation and Selection to Discover Best Practices: The three ingredients of evolution are variation, selection, and inheritance. Genetic evolution is based on genetic variation, natural or artificial selection, and genetic inheritance mechanisms. There is more to evolution than genetic evolution, however, including psychological and cultural processes that count as evolutionary (Jablanka and Lamb 2005, Richerson and Boyd 2005, Wilson 2007). Indeed, in a profound sense, every new solution to life’s problems originates from a variation and selection process.

DYOP is explicitly designed as a managed process of cultural evolution. Each group that enters the competition is an independent social experiment. How well they function and the ideas that emerge from their brainstorming cannot be predicted beforehand. In other words, there will surely be variation in the plans that are submitted, which can be selected according to carefully designed judging criteria. Implementing the best plans and making them available to all groups for the next round of competition counts as inheritance, the cultural equivalent of genetic inheritance mechanisms. In this way, we will literally evolve the practices that work best in our neighborhoods.

4) The importance of beautiful natural surroundings: All animals are genetically adapted to seek habitats that enable them to survive and reproduce. When they are
forced to live in barren habitats, they become physiologically and psychologically stressed. When this obvious fact is applied to our own species, it means that people find joy in water, lush vegetation, flowers and fruit, non-dangerous animals, and structures that afford protection and safety. Our habitat seeking instincts evolved over many millions of years in natural environments and we can’t turn them off when we move into cities. Extensive research shows that barren urban landscapes are stressful and that providing natural surroundings can substantially improve mental, physical, and social health (e.g., Kellert 2005).

A recent study of hospital recovery patients vividly illustrates the power of natural environments to improve health (Park and Mattson 2009). Eighty female patients who underwent thyroid surgery were randomly assigned to rooms that were identical except for the presence and absence of plants. Patients with twelve foliage and flowering plants in their rooms required less painkilling medication, had lower ratings of pain, anxiety, and fatigue, more positive feelings about their rooms and their hospital stay, and were discharged from the hospital sooner than patients in rooms without plants. We can improve our health and save millions of dollars in healthcare costs merely by decorating hospital rooms with plants!

The same goes for providing natural surroundings in our neighborhoods, which explains the joy and tranquility that most people experience when they visit a beautiful park. Neighborhood parks can provide the same kind of physiological, psychological, and health benefits as plants placed in a hospital recovery room. There is a tendency to regard aesthetics, or the appreciation of beauty, as more superficial and dispensable than bread-and-butter issues such as education, jobs, and crime. On the contrary, creating an aesthetically pleasing park in one’s neighborhood is arguably the most cost-effective way to improve the quality of life and can even address some of the bread-and-butter issues, as the following sections demonstrate.

5) The importance of unstructured play in mixed age groups for children: We are a cultural species. The reason that we have such a prolonged childhood and live to such an advanced age is because we have so much to learn and teach. This is true for all cultures. Yet, in hunter-gatherer and many other traditional societies, there is almost nothing that resembles formal education. Instead, the children go around in mixed-aged groups. The younger kids want to be like the older kids and the older kids want to become adults, who provide explicit instruction when needed. Most learning takes place in the context of self-motivated practice and play (Gray, 2009; Hewlett & Lamb, 2005).

Through free play (that is, play directed by children themselves), children acquire valuable cultural and social skills, including, especially, skills in getting along with one another, negotiating differences, abiding by agreed-upon rules, overcoming impulsiveness, and following through on self-generated plans. These are skills that cannot be taught in a top-down way; they can only be learned through practice. Throughout history, from hunter-gatherer days on to modern times, free play with other children has been the primary means by which children have
practiced and learned such skills. The drive to play is nature’s primary means of motivating children to learn the whole range of skills that they must acquire to become competent adults.

In modern America, the opportunities for free play have been declining continuously for the past fifty years, as children’s lives have become increasingly structured by adults. Over this same period, psychologists and medical researchers have documented a continuous and dramatic rise in childhood anxiety, depression, obesity, and other mental and physical disorders (Twenge et al., 2010). They have also documented a continuous decline, using a standard measure, in young people’s sense that they have control over their own lives (Twenge et al., 2004). Traditionally, play has been the primary means by which children practice and exert control over their own actions and the means by which they develop fit bodies. Although correlation does not prove causation, all evidence in this case points to a causal link between the decline in free social play and the declines in the mental and physical health of young people.

Peter Gray, a psychologist at Boston College who is closely associated with the DYOP, has spent many years researching the benefits of self-motivated play in mixed-age groups of children. He has found that children and adolescents enjoy playing across wide spans of ages and that age-mixed play is particularly conducive to learning. In age-mixed play younger children learn physical, intellectual, and social skills from older ones, and older children practice skills of nurturing, leading, and teaching—which help them develop a sense of their own growing maturity (Gray & Feldman, 2004; Gray, 2007). In short, the benefits are tremendous and suggest new educational strategies that are highly feasible and cost-effective. By providing a safe environment for unstructured play in mixed-age groups, neighborhood parks can become part of the solution for a bread-and-butter issue such as education and healthy child development.


It is mistaken to regard “quality time” as somehow less important than “getting down to business”, just as it is mistaken to regard beautiful surroundings as less important than bread-and-butter issues. To the extent that a neighborhood park provides a place for adults to relax, reflect, and get together, it will enable them to “broaden and build” (a phrase used by Frederickson) their personal qualities and relationships with each other in pursuit of long term goals. Once again, a seeming “luxury” such as a neighborhood park can provide solutions for a bread-and-butter issue such as adult social welfare.
7) The Importance of Social Control and How It Can Emerge Spontaneously:
Social life is always vulnerable to exploitation or simple failure to do one’s part. Unless transgressions can be easily monitored and punished at low cost to the enforcers, cooperation becomes difficult to maintain. Rewards are even more important than punishment. The healthiest social environments provide abundant rewards for good behavior coupled with mild punishment for bad behavior and the capacity for more severe punishment when required (Biglan 1995, Gintis et al. 2005).

Sociologists measure the capacity for social control in a neighborhood by asking survey questions such as “If there were a fight in this neighborhood, neighbors would interfere.” Research shows that social control is even more important than social cohesion (how much neighbors like each other) for the overall quality of a neighborhood (Sampson 2004).

Social control emerges spontaneously when neighbors know and positively interact with each other on a daily basis (Jacobs 1961). When older residents of Binghamton recall their childhoods, they frequently comment that their neighbors could ground them for their misbehavior by calling their parents. They regarded this kind of social control as liberating, not confining, because it gave them the freedom to go wherever and do whatever they wanted as long as it was within bounds.

Some neighborhoods in Binghamton still have this liberating form of social control but others have lost it. DYOP is designed to cause neighbors to know and positively interact with each other on a daily basis in the creation, use, and maintenance of their park. The liberating form of social control will emerge spontaneously from these interactions and can have benefits that extend far beyond the park boundaries.

8) The Importance of Scientific Assessment: The benefits of a neighborhood park might seem obvious but they are seldom measured. Having a university involved in the DYOP competition provides both the expertise and the workforce (in the form of students working for course credit) to assess what happens when a group gets together to create a neighborhood park.

The Binghamton Neighborhood Project has developed an innovative way to assess neighborhoods through a survey called the Developmental Assets Profile (DAP), which was developed by Search Institute, an organization that has been using science to improve communities for over 50 years (http://www.search-institute.org/). The DAP measures the personal assets of the students and also their social assets, such as family, neighborhood, church, school, and extracurricular activities. The innovative part is to link the survey information to the residential locations of the students, to measure how the neighborhoods vary in addition to how the individual students vary. When this information is visualized in the form of GIS (Geographical Information System) maps, the city of Binghamton appears as a rugged topography of hills and valleys, representing neighborhoods that score high
and low in developmental assets, respectively (Wilson et al. 2009). By giving the DAP at regular intervals, we can measure how the assets of the neighborhoods, as assessed by the children living in the neighborhoods, change over time. If a neighborhood improves on the basis of a park project or any other intervention, it will be reflected on our GIS maps as an increase in elevation, such as a valley rising up into a hill (Wilson 2011).

In addition, every neighborhood that enters the DYOP competition is assessed by a door-to-door survey of adults and an evaluation of the built environment. A second neighborhood matched for socioeconomic variables that has not yet entered the competition is also assessed. All of this provides baseline information so that if a neighborhood does improve on the basis of entering the DYOP competition, we’ll be able to measure it with a high degree of confidence. A second door-to-door survey and evaluation of the built environment will show improvement in the neighborhood that becomes engaged but not the matched neighborhood, children from the neighborhood that becomes engaged will report higher developmental assets on the DAP, and so on.

All of these scientific principles result in features of the DYOP competition that seem highly intuitive, but the importance of the “science behind the scenes” should not be underestimated. Just because something seems intuitive or even obvious in retrospect doesn’t mean that people automatically converge upon it. Even when people are doing the right thing, knowing why it is the right thing can provide a strong argument on its behalf—turning a park from a seeming luxury that can’t be afforded during hard times to a necessity and the most cost-effective way to improve physical, mental and social health. Finally, many people who want to do good are plagued by the uncertainty that their contribution will not make a difference, resulting in a cost to them and no gain for anyone else. Having confidence that a group effort will work—and can be proven to work with rigorous assessment methods--can have a huge effect on willingness to join the effort.

That’s All Very Good In Theory—But How Does It Work In Practice?

As the DYOP was being planned in 2010, the Mayor’s office informed the author about a group that was already trying to improve its existing neighborhood park, with little progress despite good intentions on all sides. This group became a prototype for the DYOP concept and has made excellent progress in less than a year, despite the vicissitudes of any real-world group. The prospect of making genuine progress after three years of non-action, and being able to design their own park at a much more ambitious scale than their previous expectations, was highly motivating for the group. A brainstorming party at the park was widely attended and provided ideas that were transformed into a design by a landscape architect working with the Binghamton Neighborhood Project. The rules of the DYOP stipulate that the park must reflect the interests of all residents, from the youngest to the oldest, so the design included features for older children and adults in
addition to young children. A competition was held to rename the park, which is now called Sunflower Park based on an entry submitted by a child. The initial group, which consisted of a small number of highly committed volunteers, has grown into a larger group with more structure, along the lines of the design principles described in the previous section. There were bumps along the way—the first events provoked complaints by some neighbors about the music, for example—but the steering committee is developing the structure to assess the opinions of the neighborhood residents and manage conflicts such as this one in a fair and efficient manner. Periodic events such as a Halloween party and small steps toward the creation of the park have provided a basis for ongoing interactions. The city is preparing to install the below-ground water and electricity for the park that will enable the above-ground installation to begin in the spring of 2011, a year after the beginning of the project.

Most people who have become involved with the Sunflower Park project will attest to its empowering effect on the neighborhood. As expected, when neighbors meet to discuss the park they also discuss their other concerns. Additional plans are formulated, such as an afterschool homework club or making healthy food available, which include but also go beyond plans for the park. The existence of the group and its relationship with the city and Binghamton Neighborhood Project makes it easy to connect the needs of the neighborhood with services that are already available, or to identify and remedy gaps in services.

The competition itself was launched in June 2010 with a press conference and signs placed on some of the vacant lots that were eligible for the competition. Many other vacant lots and other neglected spaces throughout the city were potentially available, but the designated lots were definitely available. One thing that did not happen was a rush by dozens of neighborhood groups to join the competition. Very few neighborhoods were sufficiently organized to act in such a coordinated fashion. Instead, there were expressions of interest by numerous individuals throughout the city and the task of forming a neighborhood group was the first step that needed to be taken. Thus, the idea of a synchronized competition failed to materialize and we started working with groups to develop their projects at their own pace.

The projects also started to diversity beyond our original conception of neighborhood parks. The idea of a dog park elicited huge interest among dog owners throughout the city and a high school student initiated the idea of a BMX park. We decided that theme-based parks were as worthy of developing as neighborhood parks and expanded the scope of DYOP to include these projects. We also discovered that existing city parks could serve as locations for projects in addition to vacant lots and other neglected spaces.

An important event in the DYOP competition was a symposium titled “Empowering Neighborhoods and Restoring Outdoor Play” that as held in Binghamton in September 2010. The symposium was in part a national referendum that brought scientific experts, major organizations that facilitate the construction
of playgrounds and community spaces nationwide, and authors such as Lenore Skenazy (2009) and Hara Estroff Marano (2008) who are speaking out for the importance of play and public spaces, together for the first time. This article is part of a special issue of the American Journal of Play that reports the results of the symposium to an international audience. The symposium was held in Binghamton so that it could have an equal impact at the local level, enabling the groups that had entered the DYOP competition to interact directly with the experts. One of the symposium participants was Hindi Iserhoff, who represented City Repair (http://cityrepair.org/), an organization that promotes turning intersections into vibrant community spaces. Her talk inspired the resident of one of the toughest sections of the Binghamton to propose an intersection project rather than a park project, which expanded the scope of the DYOP still further.

As of this writing, five projects have been initiated during the first year of the DYOP competition. The prospect of empowering one’s neighborhood or interest group through the creation of a wonderful public space has been the primary motivating factor, rather than the competitive element. The field of possibilities has expanded beyond parks to include intersections, parking lots, and buildings. In short, the DYOP has evolved during its first year, which is fitting for a program that is designed with evolution in mind. As the idea catches on, and if the first projects demonstrably succeed, then it is feasible to expect dozens of additional projects during the next few years, each empowering a neighborhood or interest group to take charge of its own affairs. This grand experiment is well worth the attention of other cities, even while it is in progress and the final results are not yet in.
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Literature Cited


