



Interview of Raquel Pinderhughes

Executive Director, Roots of Success, Berkeley, CA

Interviewed by Steve Dubb, Research Director, The Democracy Collaborative
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Dr. Raquel Pinderhughes is Founder and Executive Director of the Environmental Literacy Curriculum Project, which manages Roots of Success, and Professor of Urban Studies and Planning at San Francisco State University – where she teaches courses on urban environmental planning and policy, sustainable urban development, and environmental justice.

Could you talk about your background and how you got involved in work related to prisoner reentry and environmental justice?

For the past 35 years, my work has been focused on how we can improve quality of life for people in underserved urban communities. I spent the first part of my career documenting environmental injustices in low-income communities and communities of color and working in the environmental justice movement to improve environmental conditions in these communities. Many of our efforts in the environmental justice movement focused on remediating polluting facilities or shutting them down entirely. Unfortunately, as we won, many of these same polluting facilities moved to the south and then overseas. So we began to think about how people can produce, consume, and dispose of goods differently so that everyone can live in a safe environment. That moved me into the then emerging field of sustainable development where I turned my attention to understanding questions related to environmental planning and policy and began to explore how we can manage cities in ways that are more environmentally and socially responsible. My focus has always been on cities. I started by looking at environmental issues in underserved communities and moved into work that focuses on how everybody can be protected from environmental harm. That moved me into the field of environmental sustainability. I spent more than a decade working in cities around the world—Cuba; Spain; India and Brazil—working with people who manage programs that improve environmental quality and reduce poverty.

That first part of my career was focused almost entirely on teaching and research. The second part has been focused on teaching and research but also on developing and implementing programs that improve environmental quality, break the cycle of poverty, help people achieve their personal goals for success, and inspire them to work to improve conditions in their community. Mid-career I was asked to develop and direct the Delancey Street College Program, where I had the opportunity to teach ex-offenders about urban environmental policy and planning issues. Delancey Street was important to my development as a teacher and a person because I had to present these issues in a way that was relevant and meaningful for a population with multiple barriers to education and employment. Working at Delancey Street deeply informed my understanding of the needs of incarcerated and re-entry populations and strengthened my commitment to improving quality of life for disenfranchised populations. Later

on, I became the director of the Willie Brown Internship Program, which supports the professional development of students who face barriers getting to and through college by placing them in prestigious San Francisco city government internships and mentoring them as they work in these agencies and pursue their career goals.

In 2004, I wrote a textbook that summarized much of what I had learned from working in cities around the world, called *Alternative Urban Futures: Planning for Sustainable Development in Cities Throughout the World*. It focused on how we can manage urban infrastructures related to water, waste, energy, transportation and food systems in ways that are more environmentally and socially responsible. At the end of that period, I had a very well developed understanding of urban infrastructures and the jobs that come on line as we move from a pollution-based approach, to a more sustainable approach, to delivering goods and services in these five areas.

One of the things that became clear is that as we transition to a more sustainable economy and society we need to think about who this new sector of the economy will include and exclude. We could easily green our infrastructure while reproducing the exact same inequalities and injustices that exist in the traditional labor market and pollution-based economy – locking people with less education and skills into low-wage, dead-end jobs or keeping them out of the labor market entirely. I am committed to working to ensure that the people who are most impacted by the problems that stem from a pollution-based economy – the people who need jobs most —receive the training and support they need to access good jobs and careers in the green economy are empowered and positioned to help us figure out how to address the problems we are facing.

I spent 2005 to 2007 studying the green economy, dividing it into 22 sectors, and interviewing employers in 21 of these sectors. I wanted to know what it would take for employers to hire workers with barriers to employment for green jobs in their firms. I asked employers what are the qualifications you look for. How do you make decisions about who to hire? What is the worker's trajectory over time? I asked other questions about the mission of the firm. I found a lot of interesting things, including the importance of public policies and industrial zoning.

At the end of this study, I really understood the green jobs landscape. I broke down the jobs that required no college education and used the term “green collar jobs” to describe jobs that are available to people with lower levels of education and skills. I learned that employers typically hire college graduates for these jobs because they want employees who are academically strong and understand the environmental mission of their firm. More than hard skills or relevant experience, it is passion and commitment to the mission of a firm that makes job applicants most attractive to employers. As a result of that study, I developed the first green jobs training model, which is colloquially called “the Pinderhughes model”.

That model was used by the Oakland Apollo Alliance and the Ella Baker Center, which Van Jones founded and directed at the time, to create the Oakland Green Jobs Corps. We received a lot of attention from the press and policymakers interested in green jobs training. What made the module unique was that, in addition to focusing on soft skills (academic skills), hard skills (the job you do), and job readiness (labor market skills), it included environmental literacy training, a paid internship, and a Green Employer Council that is structured to deepen the relationship between job training programs and employers. Later, the model influenced the development of

the federal government's Pathways out of Poverty Program funded with stimulus [American Recovery and Reinvestment Act] dollars and the Pinderhughes model took off fairly quickly.

I found myself consulting with staff in training programs throughout the country where I quickly learned that there were no environmental education curriculums specifically designed for the youth and adults who have been failed by traditional academic settings and, who live in the neighborhoods most heavily impacted by environmental and public health problems. That's why I created *Roots of Success*, an educational program that prepares youth and adults, with barriers to employment, for good green jobs and to improve conditions in their communities. The curriculum is a direct result of my professional and personal experiences up to now — my teaching and academic research in the US and abroad, my work with low-income youth and adults who have barriers to employment, my work with job training programs, and my work on the green economy and green jobs.

How do you define green jobs?

Green jobs are jobs that directly improve environmental quality. They should also provide workers with living wages, safe and healthy working conditions, benefits, opportunities for continual training and career development, and the right to organize. Since we are rolling out a new term and idea, it is important to include the conditions that people labor under into the definition. Because they improve the environment and potentially public health as well, green jobs are inherently dignified, meaningful, community-serving jobs,

I'm interested in green jobs because they have the potential to fight poverty and pollution simultaneously. To reinvigorate our economy we need to do at least three things – raise the minimum wage (so consumers can spend more), put more people to work, and repair and green the infrastructure. If we did this we would have good, well paying, green jobs that cannot be outsourced.

Could you discuss the origins of the “green jobs” movement? How has it evolved over time?

I would trace the green jobs movement to the environmental justice movement, which early on in its history focused on the fact that the people most impacted by environmental hazards should be trained and paid to remediate them. This gave rise to job trainings program such as the Chicago Green Corps, which initially focused on “haz whopper” training — that is, training that prepares people to do jobs such as lead and asbestos abatement.

In the mid 1980s, as mayors began to address local environmental problems – such as traffic congestion, running out of landfill space and community opposition to incineration – they expanded mass transit and created recycling programs, which expanded and created green jobs. Since the 1990s, the focus has expanded to energy efficiency, alternative energy, urban agriculture, sustainable agriculture, and many more areas. These jobs grow as public officials and managers deal with local and regional environmental challenges.

It seemed that there was a big boost that support green jobs in 2009, but that has dissipated? Where are green jobs today?

To understand where green jobs are located you need to look at the decisions that city managers and their colleagues are making as they deal with a wide range of environmental challenges. In rural areas, you have problems with cattle breeding, factory farming, waste pools. In suburban areas, you have problems associated with suburban sprawl and growth. In urban areas, you have problems related to air quality, waste management, automobile dependency, food deserts, and mass consumption. Many of these challenges get dealt with by the city managers, who do not talk in terms of “green.” They simply say we are running out of landfill, what are we going to do? Well, we are going to improve recycling. We are having huge problems of air contamination, how will we address it? We will use car pool lanes and mass transit. Problems related to fuel prices and climate change, promote energy efficiency and solar installations. Every major institution is trying to increase energy, water, and waste efficiency in order to cut costs—HUD [U.S. Department of Housing & Urban Development], the military, public schools, prisons, and jails. You find green jobs being created in the places where environmental problems are being solved. If you understand this, you can see that green jobs are one of the fastest growing sectors of the economy, even in the recession.

What is the federal role?

The federal government has a huge role to play in the transition to a green economy. In addition to passing and supporting environmental policies, the federal government has always paid for infrastructure. The ARRA [American Reinvestment and Recovery Act or “stimulus bill”] dollars were also very important. Most of our first clients came from these dollars. *Roots of Success* is a really good marker of the degree to which ARRA supported new programs, allowed existing programs to expand, and how after the stimulus funding ended these programs were ending or retracting. ARRA made a huge difference and was a huge shot in the arm for low-income people seeking employment. The Pathways Out of Poverty grant supported programs that prepared thousands of low-income youth and adults to work in the green jobs labor market. These programs have to scale back significantly now that the stimulus dollars have run out.

We collect extensive data on the programs that use our curriculum. In 2011, the average job placement rate of these programs was 51 percent. That’s an incredibly high success rate considering the barriers the populations we are working with face in the labor market and in this recession.

We are now focusing our attention on the \$7.2 million that the Obama administration has allocated to train veterans for green jobs as well as the interest the private sector has in training and hiring vets for jobs in the clean energy sector. We see this as a perfect market for *Roots of Success* since 74 percent of veterans don’t have a BA degree and 51 percent of veterans participate in some form of job training each year.

Could you discuss the origins and development of Roots of Success? Could you describe what your training approach is?

Roots of Success is designed to prepare people who come from communities that are heavily impacted by environmental and public health problems for the green jobs and careers that emerge as we put solutions to these problems into place. Without programs like *Roots of Success* people who come from underserved communities, and people who have been failed by traditional educational institutions, will not be able to compete with college-educated graduates for these jobs. *Roots of Success* provides people who have multiple barriers to employment with the academic skills and environmental knowledge they need to get to the point where an employer will take them seriously. As importantly, since we have a captive audience in a job-training program, we use this opportunity to strengthen the skills people need to improve conditions in their community. This is why one of the nine modules in *Roots of Success* focuses on community organizing and leadership. We want people to improve their life circumstances through green jobs and careers but we also want them to be able to deal with the economic and social forces — such as gentrification — that profoundly impact low-income communities.

Roots of Success is a basic skills curriculum (reading, writing, math, critical thinking, problem solving) and job readiness curriculum (understand the difference between jobs, career, career pathway, introducing them to unions and apprenticeships, developing a resume, cover letter, going through mock interviews) that focuses on environmental issues. The curriculum is divided into nine modules (Water, Waste, Transportation, Energy, Building, Health, Food and Agriculture) bookended by introductory and concluding segments. Eight modules focus on environmental sectors and one module focuses on community organizing. We help people understand the root causes of environmental problems and how we can address them from multiple perspectives – planning, policy, technology, organizing, etc.

We describe *Roots of Success* as a college education for people without a high school degree. Although most of the people we work with are considered “not ready” for college, none of the information we present is dumbed down. Students are systematically presented with the knowledge and skills they need to understand the root causes of environmental problems and the range of approaches that can be used to address these problems. By the end of the course students understand scientific processes that help to explain water cycles, nutrient cycles, incineration, bioaccumulation, fossil fuels, climate change, etc. as well as social and political processes that help to explain environmental decision making, cost-benefit analysis, the precautionary principle, environmental injustice, climate injustice, etc.

Can you say more about what a module looks like?

Each module has the same basic structure: introduction, problems, solutions, an overview of green jobs and career pathways, a quiz, reflection questions, and an application and practice section where students can take what they learned in the module and apply it in their lives. To develop *Roots of Success*, I interviewed job-training directors around the country who told me that they have no extra time for additional training. That’s why each *Roots of Success* module can be delivered in 4-5 hours and why programs can teach as many or as few of the nine

modules as they like. It's a very efficient and flexible curriculum. The way we cover so much content and so many objectives is by using an Instructor's Manual that every single instructor is trained and licensed to use, and by using a multi-media approach that uses videos and visuals to introduce students to complex issues and systems like electricity, climate change, water and nutrient cycles, green building techniques, etc. For example, we can help students understand a range of issues related to fossil fuels, coal, electricity and greenhouse gas emissions using a 4-minute video. Once we incorporated multi-media we had all sorts of opportunities. We don't just use video. We also use visuals on slides. This approach allows us to simultaneously teach to visual, auditory and kinesthetic learners. We get auditory learning from the teacher, who reviews the concepts. Kinesthetic learning uses team-based activities to introduce students to all of these ideas. As we tried to address the challenges programs face as they prepare people with barriers to employment for jobs and the challenges of students who have been failed by traditional learning settings, the curriculum evolved into a deeper and more effective experience for both instructors and students. There's very little time that the teacher is just talking to the students. The way it typically works is that the teacher throws out an idea and students respond. I've been talking about it as a "call-and-response pedagogy."

Could you tell us a bit about the demographics of the groups you serve?

All of our instructors fill out a survey on the demographics of each class they teach. In 2011, 98 percent of the students in our classes were living in poverty, 93 percent were unemployed at the time they took the class, and 42 percent had been incarcerated as children and/or adults. Fifty-one percent were men and 49 percent women. The median reading level was seventh-grade proficiency; the median math level was fourth-grade proficiency. The overwhelming majority of our students are low-income students of color from groups underrepresented in higher education (82 percent in 2011); 47 percent African American and more than 35 percent Latino in 2011.

In a short period of time, you have partnered with groups in 34 states, Puerto Rico, and the United Kingdom, trained 500 instructors, and certified 3,000 graduates. Talk about how you managed that growth.

When people see those numbers, people think it's a lot of growth. We think it is small because the need is so great. We are a very tiny organization. We have two full-time staff people. I work pro bono. The only way people learn about us right now is through word-of-mouth, by hearing me at a conference, or through the Green For All website.

There are very few, if any, other environmental curriculums out there designed for adults with lower levels of education. Program staff members know that if they want to keep the attention of the youth and adults they are training, they have to keep them interested. Our pedagogical approach doesn't just provide information on the environment, we connect that information to people's concerns and hopes and we try to inspire people to become activists – the justice aspect is very important to our organization. The fact that it focuses on issues of justice is important. People working with our student population deeply care about justice. They don't want a curriculum that is just about global warming. They want a curriculum that focuses on equity and

justice. They know that will be more relevant for their participants. The fact that we do this is important.

Roots of Success meets the needs of a wide range of programs for three or four reasons: 1) the content is what people need (environmental knowledge plus academic skills); 2) the curriculum is flexible – you don't have to teach all nine modules; 3) It is very affordable. It costs \$600 per instructor for a one-day training and then instructors order Student Workbook for \$50 for each student; and 4) the Instructor's Manual is critical – because it allows people who don't have expertise to teach the course. The people teaching *Roots of Success* often teach or work in a wholly different subject like hard skills or counseling. The Instructors Manual is very important to our success because it allows people from many different areas of expertise to teach the curriculum. Our teachers are welding teachers, math counselors, job training staff, prisoners serving long-term sentences, parole officers, etc. The Instructor's Manual allows people to come up to speed quickly and to teach the curriculum effectively. I just did a training session with 20 teachers. Of these 20, about five had a horticultural teaching background and one was a GED teacher. The rest had less than that.

Youth and adults that have failed in traditional academic settings enjoy *Roots of Success* because it makes learning relevant, focuses on success, connecting education to employment, and inspires individuals to change their own personal behaviors and conditions in the environments.

Instructors really appreciate that the curriculum is extremely organized and user friendly. Everything you do is carefully designed and well laid out. It's a turnkey curriculum. Instructors love that – even people who know the content well appreciate having everything in one place and knowing exactly what the student learning outcomes for each module are.

Because our curriculum is affordable, easy to use and deals with scientific and social issues, our content is really relevant to the people whom programs are serving. It turns them on to learning instead of off.

People also appreciate that the curriculum presents a balanced view on most issues. Some of the people we train are Republicans or Libertarians. They feel comfortable teaching *Roots of Success* because we allow them to present both sides of the nuclear issue or fossil fuel issues.

Upon completion of the curriculum, we provide students with a certificate at the end of the course that is increasingly recognized by employers and educational institutions. This is critical for students when they finish their programs.

Instructors really like the training. We've been able to get continuing education credits for people who are trained.

The *Roots of Success* curriculum was designed with a lot of intention. I did a lot of research on the needs of the programs we work with and created the structure with these needs in mind. The price-point is critical. It has to be affordable. Instructors who aren't experts in the content need to be able to teach the course since many programs don't have environmentalists on their staff. Every module has a huge amount of content on green jobs and careers in that sector. I'm always

thinking about how it's going to be used and by whom. Each module was reviewed by a panel of experts, then piloted in six different programs, then changed and improved over the first three years we piloted it. We are always listening to our users and improving it to meet their needs.

On your website, you mention that you work with organizations in a number of sectors (green jobs training, advocacy groups, government, community colleges, historically black colleges, high schools, and prisons). Could you describe how your work differs from sector to sector and how you accommodate the different needs of these populations?

Because our pedagogical approach is based on the information in our class being directly relevant to each student, we've created customized versions of *Roots of Success* for different audiences. This is very important. The *Roots of Success* experience allows each student to build on past knowledge and experiences. Our secret spice is that students feel that the content is relevant and meaningful to them.

The first curriculum was for adults in green jobs programs. The second was translation in Spanish. We found all new videos produced in Spanish-speaking countries. We wanted people to see themselves and hear their language. We had a team of Puerto Ricans, Chicanos, Argentineans, and Mexicans working on the translation since different Spanish-speaking countries use different terms to describe similar things. We produced what we call a universal translation and all of the videos we use were produced in Spanish-speaking countries. Then we realized we needed a version for youth in high schools and youth programs – so we created a youth version. Then, as it started to be used in prisons, we learned that they didn't have access to computers. So we adjusted our curriculum and we added content on the greening of prisons. And, most recently, we created a new version for low-income social entrepreneurs that want to or currently own and operate green enterprises. And we're hoping to develop a curriculum for worker owned cooperatives. About 80 percent of the content in a customized version is the same, but where things change is in the activities, exercises, and examples. You have to give people opportunities to apply what they are learning through a lens that is more similar than different to their own. For the United Kingdom, we worked with colleagues in England to flip out all of the content that was US-focused and make it UK-focused. And we're now talking with colleagues about developing a version of the curriculum for South Africa. It is the same fundamentals, but all of the examples change. Customized versions are critical because they make the material directly relevant for participants.

Organizationally, we are small and underfunded, but we have found that problem helps us to be incredibly nimble. It allows us to respond quickly to what programs and people need. For example, we were able to quickly take out all of the computer content to create a version for prisons, jails and juvenile justice facilities.

Why did you set it up as a nonprofit social enterprise? Did you consider being a for-profit?

Being a for-profit was never an option. It's not my style and that has never been a goal. What I wanted to do was reach as many people as possible. Originally I thought I would create a

curriculum and teachers would download it as an open-source document. As I began to understand that there needed to be an Instructors Manual, the need for people to be licensed became apparent. The pedagogical approach is critical to our success. The reason people are trained and licensed is to ensure that no matter the program, location, instructor, or students, *Roots of Success* is communicated in the most impactful way. The only ongoing cost to programs interested in using *Roots of Success* is purchasing Student Workbooks for each student in their classes. This investment from programs is the principle means the *Roots of Success* organization grows. With every new instructor and every new program, the organization can turn around and build a better curriculum, staff our support team, and continue to outreach to new programs across the country. The best way we can grow in reach is to build the best curriculum for the people we aim to serve. Our growth as an organization is a direct result of programs seeing the curriculum's impact on their community, then them making the decision to make *Roots of Success* the go-to curriculum for environmental literacy and job readiness skills.

What are your main priorities going forward?

Our main priority going forward is that we would like to serve more programs and people. There is a huge need for *Roots of Success*, not simply because of its green jobs focus, but because of its transformative impact. The experience helps people who've been failed by the educational system feel more competent and more connected. People need to know more about us and we would like to get more revenue into the organization so we can hire more staff and reach more people.

Roots of Success is a non-profit social enterprise, which allows us to focus on developing the best curriculum and supporting teachers and programs to provide the most effective and transformative educational experience for the people we serve.

I am also excited about the impact of my work on job training more generally. The focus on environmental literacy has changed the way green jobs training is moving forward. People now understand that it is not just about hard skills training. When people are training to be health care aides, they learn nothing about the health care system. Job training has been primarily about getting people off the welfare rolls into low-wage, not very autonomous jobs. Bringing the idea of literacy — connecting people to the issues — is transformative for the job-training world. I don't want to take too much credit for that, but it's an important shift — it's not just hard skills and soft skills, it's helping people understand the arena in which they will be working.

I am proud that we have helped people. Our graduates talk about the fact that this training has made a huge difference in how they see themselves and the world around them. A lot of students talk about how they talk with their children about what they learned in the class when they would not have before and that they are now behaving differently with their kids and families— recycling, buying less toxic products, consuming differently, eating foods that are healthier for them, going to community meetings.

If you had to highlight a few key accomplishments of Roots for Success' work to date that you are most proud of, what would they be?

One of the things I am most proud of and that is most fulfilling to me is that I produced and manage *Roots of Success* primarily with young people who come from the communities we serve. I am very proud of the workplace we have set up together – we work collaboratively, as a team, minimal hierarchy, decent salaries and benefits for paid staff, good working conditions. *Roots of Success* has become a place where young people of color can be mentored, paid well, launch their careers, and give back to their communities. I didn't know I would be doing that when I started, but I am really proud of that. That young people can be mentored here, that I can learn from them and we all benefit.

I am also excited about the fact that because we produced a curriculum that can be taught by instructors who don't have expertise in the content, people who are not experts in the content and/or who don't have teaching experience can become instructors and teach using our teaching materials. Many of our instructors have never taught before and the experience of teaching *Roots of Success* has transformed them. In one of the prisons we work with in Ohio, we have men who are serving life sentences in prison teaching men who are serving shorter sentences so they can get jobs in the green economy when they re-enter society. I like the idea that people who don't have the expertise can communicate complex environmental justice and social justice issues effectively to others. That's a success of the curriculum. This has put us in a position where lots of people are now teaching *Roots of Success* - job counselors, probation officers, people in prison, welding instructors, GED instructors, graduates of community-based green social enterprise programs. These are people teaching *Roots of Success* along with more experienced teachers.

I am excited that *Roots of Success* accomplishes much more than we intended. We thought it would primarily help people understand the environment and acquire academic skills that would put them in a better position to find work in the green economy – but the curriculum clearly inspires people to get involved in their community. It's also clear that the curriculum makes people feel more connected to larger issues in society and in their neighborhoods. I have had students tell me that they felt completely disconnected from these issues before they took the course and now this is what they really care about. It's clear that people are integrating the information into their lives – that it has changed them – that they have become environmentally aware and engaged in ways that are meaningful for them. I am very proud of the transformative impact of the curriculum on both instructors and students.

Anything else you would like to add?

A lot of people contributed to the development of *Roots of Success*. I was the creator of the curriculum. I developed the content and the pedagogy, but a lot of people helped – students, staff, evaluators, and pro bono consultants. The program staff members we work with constantly tell us what we need to do to make it better. We also have a phenomenal in-house staff – Chad Flores (deputy director, director of operation and Shamar Theus (contributed to the curriculum

and program director). Right now the three of us are *Roots of Success* — we're the worker bees, but multiple hands have gone into this work.

We also have great partners. Our partnerships with Green for All and The Consortium for Worker Education in New York City have been very important. Working with organizations doing green jobs training and advocacy work has been really important. The work we are doing with people in the prisons is incredibly important and we've met amazing people through our work there.

For more information, please see the website of Roots of Success at www.rootsofsuccess.org