

## **Educating Reflective Practitioners: Learning to Embrace the Unexpected through Service Learning**

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# Educating Reflective Practitioners: Learning to Embrace the Unexpected through Service Learning

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## Abstract

Service learning projects are characterized by complex processes of knowledge production, which are contingent on narratives that inform the identities of educators, students, and community members. By encouraging students to critically reflect on their positionality and the social processes that inform such coproduction of knowledge, educators can use service learning to educate reflective practitioners capable of working productively with multiple actors. In a service learning course focusing on environmental justice at the University of Texas at Austin, students worked with a variety of community partners to document children's knowledge of environmental hazards, reflecting critically on unexpected challenges during their fieldwork.

## Keywords

critical pedagogy, service learning, reflective practitioner, child perspective, environmental justice

Service learning allows students to work closely with community organizations on applied field projects, learning participatory field research methods while contributing expertise to activist groups. Often conducted in the context of community-university partnerships (see, e.g., Baum 2000; A. Hart and Wolff 2006; Keen and Hall 2009; McKoy and Vincent 2007; Reardon 1999; Rubin 1998; Shandas and Messer 2008), service learning can contribute to more just and collaborative planning approaches by strengthening the work of community-based organizations (see, e.g., Brooks et al. 2002; Harris 2004; Kent, Gilbertson, and Hunt 1997; Lemieux and Allen 2007; Schweitzer, Howard, and Doran 2008).

Beyond the more tangible “products” developed for the mutual benefit of students and community partners—data and skill sets, strategy documents, and the like—successful service learning also furthers students' critical problem-solving skills and teaches them to adapt to challenging situations (Brooks et al. 2002; Dewar and Isaac 1998; Freestone, Thompson, and Williams 2006; Pawson and Teather 2002; Roakes and Norris-Tirrell 2009). However, beyond focusing students' attention on the “problem” at hand (i.e., the issue to be researched, the plan to be developed), we should also direct students' critical gaze toward the socially contingent processes of knowledge production that take place in such experiential field courses (see Elwood 2004).

Specifically, service learning pedagogy should provide the necessary space and conceptual tools for students to analyze the narratives of place, self, and Other that shape their identities. This, in turn, will encourage them to reflect critically on

the ways in which such narratives inform their engagements with “multiple publics” (Sandercock 1995, 1998, 2003). In other words, by developing students' critical reflexivity about the meanings they attach to the *objects* of planning, we facilitate their development into “reflective practitioners” (Schön 1987) who are better prepared for messy planning *processes*, where they must build partnerships through effective communicative strategies (Wiewel and Lieber 1998) while contending with different forms of knowledge, conflicting rationalities (Watson 2003), and epistemological challenges (Umamoto 2001).

To develop a service learning curriculum that integrates such an education of self with the development of participatory research skills and thematic knowledge, I draw on insights from critical and feminist pedagogy, in particular the concept of “border education” (Giroux 1983, 1988, 1994, 1997). The term “border education” reflects the importance of providing students with new, challenging, and unexpected encounters as part of the learning process. But it is not enough to simply inject students into such situations: effective,

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critical/feminist pedagogy also requires ongoing, open, and supportive reflection activities to draw lessons from such encounters (Brooks et al. 2002). To encourage students to consider their own identities and the narratives that inform their constructions of people and places, critical educators draw on various pedagogical strategies such as blogging, debriefing sessions, and classroom discussions to inform and make sense of experiences “in the field.”

Critical pedagogy is particularly appropriate for community-university partnerships related to environmental justice, which must be built on democratic engagements with activist groups and community members to address environmental concerns in their neighborhoods. One important strategy pursued by environmental justice activists is to form partnerships with scholars to document uneven spatial distributions of industrial pollutants and other environmental hazards (see, e.g., Cole and Foster 2001; Pellow and Brulle 2005; Terrell et al. 2008; Wilson et al. 2008). Such unjust geographies still characterize our urban landscapes, including in Austin, Texas, where segregationist zoning practices in the early twentieth century located polluting industries and communities of color on the east side while environmental restrictions were imposed in the western half of the city (see Wilson, Hutson, and Mujahid [2008] for examples of other cases). This historic, inequitable pattern of environmental benefits and burdens led to the formation of the environmental justice organization PODER in 1991.<sup>1</sup> More recently, educators in the Community and Regional Planning program at the University of Texas at Texas (UT-Austin) established an environmental justice curriculum in partnership with PODER (People Organized in Defense of Earth and Her Resources).

Although this article is informed by students' and educators' experiences with this environmental justice curriculum at UT-Austin, I suggest that the benefits of critical approaches to service learning extend far beyond environmental justice. Instead, I argue that such a reflexive education of self through community engagements has profound, *pragmatic* value for planning practice: specifically, by developing students' critical understanding of the social contingencies of knowledge production, we facilitate their future engagements with multiple publics. To make this case, I draw in part on Freestone, Thompson, and Williams (2006) and Keen and Hall (2009) to analyze a service learning course I offered at UT-Austin in spring 2007. In this course, students partnered with PODER to document and represent elementary school children's perceptions and knowledge of environmental hazards in a low-income, predominantly Hispanic neighborhood in East Austin.<sup>2</sup> Freestone, Thompson, and Williams's use of student comments to qualitatively assess service learning course outcomes, and Keen and Hall's extensive, quantitative longitudinal outcome assessments of service learning courses at twenty-three universities were productive models for my own analysis.

I begin with a review of critical/feminist pedagogy, suggesting that a critical perspective on the links between narrative, identity formation, and knowledge production can contribute to our conceptualization of service learning in planning education. In the next section, I review the history of the environmental justice movement in East Austin and the concerns surrounding children's health in this area, which led to the pedagogical goals and strategies I discuss in the third section. The principal point here is that the *project* goal (to document and represent fifth graders' environmental knowledge and perceptions) could be more easily achieved if the *pedagogical* goals were met: (1) to further students' critical reflexivity about the narratives of place and people that shape their identity and knowledge production and (2) to draw on this critical reflexivity to more effectively adapt to unexpected situations and develop creative solutions.

I continue in the fourth and fifth sections with a review of the service learning course. In the fourth section, I draw on student comments posted to the course Blackboard site<sup>3</sup> to illustrate their critical engagement with the links between narratives, identities, and the knowledge production taking place. In the fifth section, I again draw on Blackboard comments to discuss how students' growing critical reflexivity helped them resolve unexpected challenges. After this, I conduct an assessment of learning outcomes based on two course surveys, one immediately following the conclusion of the class and one conducted one and a half years later. I conclude with a discussion about the potential contributions of a service learning curriculum that foregrounds critical reflection of narratives that shape constructions of selves, places, and people, as we prepare planners to engage with multiple publics and strengthen the agency of marginalized community members.

### Service Learning, Critical Reflexivity, and Narratives of Place and People

Community-university partnerships have a long history in planning and related fields such as public health, social work, and education. Expectations are high—often unreasonably so—for such endeavors. On one hand, community-university partnerships can provide useful data and skills to community groups and assist them in improving their lives and neighborhoods (see, e.g., Bailey, Carpenter, and Harrington 2002; Dalke et al. 2007; A. Hart and Wolff 2006; Harris 2004; Hyde 2004; Minkler, Vasquez, and Shepard 2006; Oberhauser 2002; Pawson and Teather 2002; Reardon 1999, Shandas and Messer 2008). On the other hand, such partnerships can also fail due to unrealistic or poorly defined goals, lack of coherent structures, lack of continuous engagement by partners, and a failure to develop respectful and equitable working relationships that result in benefits for both community partners and universities (Hart and Wolff 2006; also see LeGates and Robinson [1998], Reardon et al. [2009], and Rubin

[2009] for critical reviews of necessary conditions for effective community-university partnerships).

However, the socially contingent knowledge production that occurs in encounters between project partners is a crucial, but frequently overlooked, dimension of community-university partnerships (Elwood 2004). Knowledge production in such encounters between educators, students, and community members is socially contingent, shaped by narratives of place, self, and Other, which in turn influence the identities and positionality of project partners. This has important implications for our conceptualization of service learning. The push to bring students “into the field” needs to be accompanied by a critical appreciation of the social constructions that inform the coproduction of knowledge. In other words, field courses will not “necessarily or unproblematically enhance students’ capacities to analyze these complicated ‘fields’ they experience critically” (Elwood 2004, 55) but must, instead, facilitate critical reflections of the very *process* of knowledge production.

“Local knowledge,” in particular, is premised on different epistemologies, rationalities, and narratives of place and people, and researchers must be cognizant of and sensitive to ethical and conceptual challenges of integrating such grounded knowledge systems into “scientific” representations such as maps, charts, reports, and so on (Fischer 2000; Watson 2003; Umemoto 2001; see also Corburn [2003], Cole and Foster [2001], and DiChiro [1998] for further discussion of such encounters of knowledge systems in environmental justice research). Through critical engagements with the challenges surrounding coproduction of knowledge, educators will facilitate students’ development into “reflective practitioners” who can work with multiple publics in creative, respectful, flexible, and ultimately productive ways (Schön 1987). This is because “reflection” provides students and practitioners an informed “antidote against technical, theoretical, political, and cultural powers—powers that might be exercised on individuals, professional practices, and cultural groups” (Procee 2006, 241).

To provide students with the necessary space and conceptual tools to perform such critical analyses, I draw on lessons from critical and feminist pedagogy. Influenced by Freirian thought and feminist theory, critical pedagogy challenges the “banking concept” of education (Freire 1970) where students are seen as vessels to be filled with disciplinary metanarratives (Asher 2005; Giroux 1997; Heyman 2001a; hooks 1994; Novek 1999). Instead, critical educators do not only emphasize technical skills but also encourage critical thinking and reflexivity (Asher 2005; Cook 2000; Maxey 1999). The goal is to create learning environments where “borders” are not only being “challenged, crossed and refigured, but borderlands are being created in which the very production and acquisition of knowledge is being used by students to rewrite their own histories, identities and learning possibilities” (Giroux 1991, 512; see also Cook 2000; Phillips 1973; Howitt 2001).

To build such reflexivity among students, critical and feminist educators seek teaching strategies that engage consciously with the different stories, experiences, and perspectives students bring to the classroom and create openings for dialogue about culture, race, gender, and other differences (Sen 2005; Plevin 2006). These engagements should facilitate critical analyses of the roles of both teacher and student (Asher 2005, 6) and in this way provide a “language of critique to analyze differences between social groups, their construction, and their roles in subjugation” (Crabtree and Sapp 2003, 132). Critical educators draw on a variety of teaching techniques to effect such reflexivity and thus help students develop an empathetic “awareness of others” (Kitchin 1999, 45): they acknowledge students’ subjectivity and show respect for their viewpoints, they challenge students to engage with sensitive topics such as race and gender, they ask students to “chart their own journeys” in journals or blogs (Cook 2000), and they openly discuss their own subjectivity as educators (Enns et al. 2004; Giroux 1983, 1997; McLaren 1998).

Perhaps most importantly, critical educators draw on “teachable moments” to encourage students to reflect on challenging “border crossings.” The goal is to help students develop a comfortable attitude towards the *unexpected*. This, in turn, requires us to see learning as an iterative process of coproduction of knowledge (Webb, Allen, and Walker 2002) where “everyone is thoroughly embodied and in the thick of what they are studying. Teaching and learning are dynamic, challenging, unpredictable, and sometimes indistinguishable, processes” (Cook 2000, 16). To develop such a collaborative learning environment, teachers must strip away their authority, empowering students to challenge dominant ideas and reminding them that they are independent, active producers of knowledge with the agency to effect positive social change (Enns et al. 2004; hooks 1994; Merrett 2000; Shor 1992). In this way, the service learning classroom can facilitate more just social action instead of reproducing dominant social relations (Howitt 2001, 148; see also Crabtree and Sapp 2003; Freire 1970; Giroux 1983, 1988, 1997; McLaren 1998; Sze 2006).

As teachers give up their own authority and allow for the unexpected (Heyman 2001a, 2001b, 2007), students are required to take their own knowledge and also the knowledge of their classmates and community members more seriously (Merrett 2000). This approach, in turn, encourages students to embrace adaptability and flexibility as key attitudes when working with multiple publics (Campbell 1974; Giroux 1988; Hay 2001; Heyman 2000, 2001b; Howitt 2001; Maxey 1999; Merrett 2000; Thomas 1996). Thus, the goal of critical service learning in planning education is not to teach “skills” (e.g., deliberative techniques or participatory research skills) per se. Instead, the goal is to develop students’ critical reflexivity, specifically their understanding of the narratives of people and places that shape their identities and hence their engagements with marginalized and overlooked



communities, such as the fifth-graders at Zavala Elementary in Austin, Texas.

### Environmental Justice in East Austin

The contemporary urban landscape of Austin, Texas, is shaped in part by structural racism and segregationist zoning stemming from the early twentieth century. The city's 1928 comprehensive plan established the area east of Interstate 35 (then East Avenue) as a "colored district" and instituted zoning regulations that permitted industry to be located adjacent to single-family housing. During the following decades, the area suffered from official neglect. City services were slow to arrive, and polluting industries continued to expand into the area, despite the increasing concerns of residents. A particularly egregious case was the "Tank Farm," a cluster of storage tanks for petroleum products that residents fought to close down as late as the 1990s (Shattuck 1998).

We conducted our service learning course in the predominantly Hispanic East Cesar Chávez and Holly Street neighborhoods in East Austin, which are now facing rapid gentrification because of their proximity to downtown. These neighborhoods are characterized by mid-twentieth-century single-family homes interspersed with restaurants and shops, many with Spanish signage. Development pressures are now leading to rapid increases in property values and property taxes, forcing many longtime residents to move. This is an ironic consequence of the recent rezoning from industrial to residential. While the neighborhood until recently was said to be "dangerous" and undesirable, the rezoning has made it attractive to young white professionals, resulting in the construction of condos on previously empty lots and "creative class" establishments such as coffee shops and art galleries.

Our principal project partners, the environmental justice organization PODER and Zavala Elementary School,<sup>4</sup> are both located in this area—in the case of Zavala, across the street from Pure Casting, Austin's only full-scale industrial foundry (Higginbotham 1999). PODER, Zavala teachers and administrators, and residents have long argued that airborne pollutants from Pure Casting present serious health hazards to the children at Zavala (Snell 2003). While air quality measurements conducted by the Texas Commission for Environmental Quality suggest that the emissions levels are "moderate," community activists point out that Zavala was built thirty-two years before the foundry and that any chemical emissions are anathema in a residential neighborhood (Whittaker 2009). Pure Casting and Zavala are thus implicated in contested narratives of history, race, justice, and community that accompany the rapid social and economic changes taking place in East Austin.

Although the health implications for Zavala students of the emissions from Pure Casting are still uncertain, a growing body of literature suggests that academic performance can be

negatively affected by air pollutants (Bener et al. 1994; Fowler, Davenport, and Garg 1992; Pastor, Sadd, and Morello-Frosch 2002; Pastor, Morello-Frosch, and Sadd 2006). Children are known to be more adversely affected by environmental pollutants than adults (Bearer 1995; Crom 1994; Guzelian, Henry, and Olin 1992; Landrigan and Garg 2002); in particular, air pollution can adversely impact lung function and development among children (Delfino et al. 2003; Gauderman et al. 2004; Kim et al. 2004). This is compounded by the fact that schools with higher concentrations of people of color are more likely to be located in areas with higher levels of air pollution (see Green et al. 2004; Morello-Frosch, Pastor, and Sadd 2002; Pastor, Sadd, and Morello-Frosch 2002).

This vulnerability to air pollutants and other environmental risks is exacerbated by children's unique experience of the urban environment. Children spend more time walking and exploring than adults and are therefore more likely to be exposed to hazardous places and to suffer anxiety from degraded environments (Stephens 1996; Strife 2008).<sup>5</sup> Since children engage with the urban environment in such intimate ways, planners must pay particular attention to the most micro of human-environment relations involving this largely overlooked group. A better understanding of "child perspective" (Skivenes and Strandbu 2006) is therefore not "only" an environmental justice issue. Children can also provide new perspectives on the urban environment that can facilitate more sustainable community development, especially in neighborhoods facing serious environmental and health risks (Chawla 2002; Corburn 2003, 2005; Fischer 2000; Francis and Lorenzo 2002; R. Hart 1999; Heiman 1997; Sheeran 2005; Tesh 1999; Tisdall and Davis 2004). In addition to the more immediate public health concerns facing the children at Zavala, the value of such child perspective for community planning was an important incentive for the service learning course.

### The Service Learning Course: Structure, Goals, and Strategies

I listed the service learning course under an existing course title ("Applied GIS"), previously offered as the second in a sequence of GIS courses. However, I quickly decided that GIS analysis would be a secondary element, partly because the class was not restricted to students with GIS proficiency. By the time I closed the class to keep the size manageable, twelve students from the programs in Planning, Architecture, Sustainable Design and Historic Preservation, as well as one student from the Department of Geography and one from the School of Information, had signed up. Only four of the students had previous GIS experience. Nine of the twelve students were from out of state (including a student from China) and needed a thorough introduction to East Austin, and ten of the students were white, middle to upper-middle class, with limited Spanish language skills. Only one of the students was Hispanic and born and raised in Austin. This

mix of students would lead to stimulating discussions and opportunities for learning across fields. However, it also required that I pay greater individual attention to students' progress, ensuring that all were well prepared for meetings with community partners and that they were engaged with the course material. During the semester, I met frequently one-on-one with students and also participated in meetings with class project teams.<sup>6</sup>

The course was offered in spring semester, but my project partners and I began developing course goals and logistics several months in advance. The first set of goals concerned project deliverables. We would develop a participatory research model to sensitively investigate and represent children's knowledge and perceptions of environmental hazards. The second, more intangible set of goals focused on developing a mutually beneficial, sustainable service learning partnership between the Graduate Program in Community and Regional Planning (CRP), PODER, and Zavala Elementary.<sup>7</sup> The third set of goals concerned the pedagogical outcomes of the class; specifically, I wanted students

1. to learn to reflect critically on the narratives that shape their own identities and hence their engagement with community members;
2. to learn the importance of flexibility and adaptability in order to work productively with community members, city officials, and other stakeholders in planning processes; and
3. to learn to reflect critically on issues of power associated with knowledge production with community members.

To develop their participatory research model, students needed to engage with Zavala teachers and administrators; PODER activists, volunteers, and board members; Austin neighborhood planners; staff and high school students from American Youth Works (AYW); leaders of East Austin neighborhood associations; GIS professionals and scholars in Austin and beyond; environmental justice activists and scholars based in other states and universities; and of course the children and their parents at Zavala Elementary. This required students to become what Christensen (1993) refers to as "savvy" practitioners, capable of engaging effectively with such disparate groups with different priorities. In addition, they had to work productively in class teams, which I formed to focus on different aspects of the project: the field research team took the lead in preparing workshops and building relationships with partners; the mapping team was responsible for the GIS development; and the representation team was in charge of developing our class deliverables, including the Web site. This team structure encouraged students to design a mixed-method approach, integrating a variety of data collection; analyses; and representational strategies such as GIS, posters, short narratives, photography, video, and a Web site.<sup>8</sup>

In the three-hour class sessions, each team reported on its work and we engaged in discussions about narratives of East Austin, our positionality, and the process of knowledge production. To encourage such reflection, I asked students to write a "logbook" entry each week on the Discussion Board of the course Blackboard site. These entries were not anonymous, and they were available for all students to read. Some weeks I assigned students to reflect on a specific issue or situation; other weeks the topic was open. I read these entries before each class and referred to them when appropriate. Although these discussions often took longer than I expected, I considered them vital for the success of the project; that is, we were more likely to reach the project goal if students developed the necessary critical reflexivity to engage successfully with our project partners.

### The Learning Process I: Developing Critical Reflexivity

We started the class with a series of informal meetings with project partners, including a "toxic tour" of polluting industries in East Austin led by PODER. Following this tour, I was gratified when I read Andrew's Blackboard entry: it suggested that students were willing to engage critically with their positionality and the life lessons that might shape their reactions to our "border crossings."

Foremost on my mind is the environmental tour we took of East Austin. One can read studies and statistics of injustices and environmental racism all day, but until one actually sees the sites and hears the stories connected to them, the ideas remain slightly abstracted. . . . A brief aside—when I was growing up, I went to school next to a large block of public housing in [Atlanta; city name changed] in a "bad" part of town. This school had been the only black high school in Atlanta during segregation. There was a large field behind the school and next to that field, separated by a chain-link fence, was a huge foundry. The foundry spewed smoke intermittently. The more observant among us noticed a fine ash on the grass. At one point we called the city about the place, and told them that we were concerned. A representative told us that the factory filtered their smoke and were all up to code, so there was no need to worry. Our young minds were eased slightly, but there was the creeping suspicion that this wasn't the whole truth. I thought about this story when I saw Zavala and the copper plating plant next door. (Andrew, January 30, 2007, Blackboard logbook entry)

Such intensely personal experiences often led to class discussions about the ethical and theoretical consequences of certain field methods, the implications of our representational strategies, and the contradictions inherent in building a reciprocal relationship with our community partners while at the same time meeting academic-professional standards for

research and data analysis. These discussions were novel for most students. For the first time, they had to consider the many social contingencies of their knowledge production. As Sam commented, “We may all have preconceptions going into our East Austin project. [We] should keep an open mind” (Sam, January 23, 2007, Blackboard logbook entry).

Students were particularly engaged when the discussion was based on “teachable moments,” since these allowed us to ground critical explorations in actual events. One of these moments occurred during a class held in PODER’s offices early in the course. (We held approximately one-third of the class sessions in PODER’s offices.) In this particular meeting, the students and members of PODER gathered to finalize the goals, timeline, and structure of the project, which had already been approved by one of the two codirectors of PODER. To prepare for this meeting, I had developed a PowerPoint presentation, including a slide listing the “class teams” with UT-Austin students’ names. When I showed this slide of “class teams,” the other codirector of PODER—who had not attended any of my previous meetings with PODER staff—immediately challenged me, asking me to explain how PODER fit into this project structure. I awkwardly responded that the research teams were intended for organization of the UT-Austin students and that “we” would jointly incorporate PODER members “later” into the project structure.

The codirector did not pursue the point, but it was apparent that she was not pleased with my answer—and I instantly regretted my response. PODER has since its inception been vocal in its opposition to polluting industries in East Austin and has been termed “radical” and “difficult” by city officials. As an activist organization led and staffed by people of color, PODER has emerged from a history defined by overt and silent discrimination and empty promises from authorities. The appearance of an organizational chart that did not include PODER, whether or not it was intended for “in-class purposes” only, could reasonably be taken as an attempt to sideline the organization. This was exacerbated by my use of the word “later,” which reminded PODER activists of what they see as a pattern of stalling on part of Austin authorities, such as the long delays in closing the “Tank Farm” and the continuing failure to relocate Pure Casting. As Steve commented on Blackboard,

[The professor’s comment] was exactly the kind of language (regardless of the intent behind the language) that white folks in positions of power are good at using when dealing with people of color. “Don’t worry, we’ll figure it out down the road. Trust me.” I want to be clear that I am not suggesting that [the professor] did anything but his best. These early moments in our relationship are more difficult to navigate since trust hasn’t really been established. [My] comment is not about “political correctness”; this comment is about recognizing the contextual power that our phrasings and words have. (Steve, January 30, 2007, Blackboard logbook entry)

In subsequent class sessions, students and I would often return to this moment in our discussions about race, place, and power. The tension students experienced in that early meeting made their embodiment “real.” It helped them realize that PODER members’ past experiences with discrimination might inform their readings of our words and actions and, similarly, that narratives of separateness, inequality, race, crime, poverty, and so on were influencing my own and students’ interpretations of our partners’ words and actions. Ultimately, such learning moments—even more so, the critical discussion about these moments—helped students draw critical lessons from other encounters. A good illustration of this is Erin’s Blackboard posting, where she reflected on the moment when one of the fifth-graders helped reveal her own preconceptions about East Austin; that is, the moment when she realized her own identity had been shaped by powerful narratives of place and people and that the relationships between histories, urban development, and race were infinitely more complex than she had thought.

“So what did you learn today?” Steve [student’s name changed] asked Daniel [name changed], our bright, insightful sixth-grade researcher/observer in the postwalk wrap and evaluation time. “That my neighborhood is bad,” responds Daniel. Silence. Hearts stop. In that moment I forgot to breathe as I struggled to find a response, wondered how Steve could possibly respond, and grasped at what to make of the comment. Despite all of our efforts to encourage kids to note what places they “like” in addition to what they’re concerned about—precisely so that our presence would not suggest that their neighborhood was a bad and undesirable place to live—this earnest student explained to us that the community mapping day taught him that the neighborhood was a bad place. . . . Daniel’s response and the brief conversation following it has been a common refrain, draped in the background of my thoughts over the past few days. Mostly subconsciously, I’ve been trying to “unpack” the statement and place it in the complicated context of East Austin gentrification and environmental justice. It was jarring in its boldness and in its contrast to my existing notions of what was good and just in East Austin. Somehow, my singular focus on the serious problem of displacement blinded me to the lurking truth that some (I have no idea how many) East Austinites want to move away. Daniel’s parents had in fact made this decision, and it was clear from his comments to others in our class that he’d long believed East Austin to be a “ghetto” where people (implicitly residents, businesses, and government) don’t clean up or take care of their neighborhood and where bad things happen. . . . I always assumed that people are driven out of a neighborhood that’s becoming nicer and forced to move to a cheaper area where environmental quality is worse. But this is clearly not what happened with Daniel or his family. The world is never as simple and our categories never as valid

as we might think them to be. (Erin, February 13, 2007, Blackboard logbook entry)

As Erin's Blackboard posting suggests, critical pedagogical approaches, especially in a service learning format, may facilitate students' ability to reflect openly on the narratives that shape their own constructions of places and the social relationships within which they are inextricably entangled. Such approaches also have the potential of revealing that knowledge production is contingent on the embodied practices, knowledges, and identities of both community members and student and teacher participants.

### The Learning Process II: Developing Flexibility and Adaptability

These critical reflections, in turn, facilitated the sort of adaptability, flexibility, and creative problem solving that is essential in service learning projects. For some of the students—particularly the planning students in the class—the emphasis on adaptability and flexibility seemed paradoxical at first. Their previous courses had instilled in them a culture of “professionalism,” which at first made it difficult for them to adjust to the fluid, informal, and situationally contingent ways of resolving issues favored by our project partners. Many of our class discussions, therefore, focused on the unexpected situations we had encountered, how students had reacted, and how the issue had been resolved—or could have been better resolved.

In one of the early class sessions, one of the Zavala teachers joined us in class to review students' proposed forms to be used when conducting the field mapping with the fifth-graders. As the teacher explained it, the forms were not child-friendly and the language was too complex and inappropriate. Based on this discussion with the teacher, the students fundamentally reworked their forms and research methods. Later, students produced a small poster to invite parents to the mapping workshops. They e-mailed the poster to PODER, where it was completely redesigned and rewritten. Although this led to some frustration, students realized this was an invaluable lesson in appropriate use of design and language in this particular neighborhood. PODER and Zavala teachers also encouraged students to hold a storyboarding activity to prepare the fifth-graders for the mapping workshops. This was an intimidating prospect for many students, but they also gained greater confidence by taking on such a challenging task. As one of the students reflected,

It seems a little crazy that we're jumping into this on Saturday, but it is what it is. I think we need to come into the time with focus, energy and a sense of humor. Inevitably we're going to be a bit ungraceful with our presentation on the first run through. Let's keep a smile on our faces and accept our

ungrace with grace. Otherwise, we'll get stressed and so will everyone else. (Steve, February 12, 2007, Blackboard logbook entry)

In the Saturday mapping workshops, UT-Austin students were confronted with the challenge of managing an entire, exuberant elementary fifth grade class and at the same time working with PODER leaders and AYW volunteers. The students organized the children in groups of three or four, teamed them up with at least one UT-Austin student and one member of PODER or AYW, and assigned each team to walk specific blocks to make sure the entire neighborhood surrounding Zavala would be mapped. The children carried clipboards, pencils, forms, and cameras to document places they found “interesting” and mark these points on a street map. To keep the children occupied while they finished preparing the various forms, students spontaneously organized an icebreaker activity and recruited the children to assist in preparing the clipboards. The number of children who participated invariably differed from our estimate, so the UT-Austin students also needed to quickly adjust the routes the teams would be assigned to walk.

During the community walks, some students were teamed up with PODER members who had not been present in previous meetings, who were unfamiliar with the project goals, and who saw the walks as an opportunity to “teach” the children about environmental hazards: after all, environmental education is a central goal for PODER. The UT-Austin students, on the other hand, had prepared to document a “genuine” child perspective, which meant influencing the children as little as possible. This unexpected challenge from project partners became a frequent subject of Blackboard entries, where students reflected on our own and community members' roles and responsibilities.

Can I become a facilitator . . . and value both local and professional knowledge, and remember to truly *respect* the insight of the residents we will be working with? (Michelle, January 23, 2007, Blackboard logbook entry)

There's a fine line between keeping the kids focused and influencing their observations. I don't know where it should be drawn. As mentioned before, there were a couple of times that I wanted to challenge their assumptions about their observations, but kept my questions to myself in an effort to honor their expertise. (Erin, March 6, 2007, Blackboard logbook entry)

Erin's unexpected dilemma—whether to facilitate children's self-expressions or our partner's goals of educating children about environmental hazards—led to productive discussions about the socially contingent *coproduction* of knowledge in service learning. Whereas the UT-Austin students and educators at Zavala were more concerned with “scientifically”



documenting children's knowledge, PODER members approached the project from the perspective of environmental activists. Students were beginning to realize that the narratives that shape their identities and engagements with community partners also informed their knowledge production.

Are we letting the children's opinions guide our research, or are we trying to fit their opinions into the research scope that we have preestablished? . . . Are we/PODER looking for children's comments to support the position that there is a problem in East Austin specifically around Zavala Elementary or are we open to other concerns that the children may have? (Kathy, March 6, 2007, Blackboard logbook entry)

## Learning Outcomes

The Blackboard comments cited above illustrate students' critical reflections on narrative, ethics, identity, and knowledge production *during* class. However, to systematically assess course outcomes, specifically whether these critical reflection during class have influenced their work in subsequent semesters or in their career as planners, I draw on three sources of quantitative and qualitative data: (1) results from standard instructor's surveys provided by UT-Austin and completed immediately following the course, (2) results from a confidential, follow-up course assessment survey given to students one and a half years following the completion of the course, and (3) anonymous comments provided by students as part of the same follow-up survey.

Shortly after finishing this rigorous and time-consuming course, the results of the standard instructor's survey suggest that students felt the workload had been "excessive" (four respondents) or "high" (six respondents; only one answered the course load had been "light"). Some students had been uncomfortable with the iterative, negotiated, and flexible format of the class, indicating that they would have preferred more structure and direction. To the statement, "Course objectives and assignments were clearly stated," two students "disagreed," three students were "neutral," six students "agreed," and one student "strongly agreed." On the other hand, even this early survey suggests that a majority of students had benefited from the experiential learning format coupled with the critical pedagogical approach. Ten of the students "strongly agreed" that "the instructor has increased my knowledge and competence in the subject of this course," and eleven of the students "strongly agreed" that "the instructor has inspired me to think more about the content of the course than what was required."

This enthusiasm for the critical learning goals of the course is more apparent in the anonymous responses to the follow-up survey completed by eight of the twelve students in December 2008. In retrospect, after a year and a half had passed, the majority agreed that the learning objectives had been reached. Seven of the eight students "agreed" or "strongly agreed" with the statement, "The class helped me learn the importance of

reflecting critically on my own positionality, perspective, and background in order to form productive and equitable relationships with community organizations." Seven agreed or strongly agreed that "the class helped me learn the importance of flexibility and adaptability in order to work productively with community members, city officials, and other stakeholders in planning processes." Finally, all eight students agreed or strongly agreed that "the class helped me learn to reflect critically on issues of power associated with documenting and representing local knowledge."

The survey also allowed students to provide comments to the same questions. These comments suggest that one and a half years later, many students still felt that the critical explorations in class had been valuable. They also indicate that the class provided them with a deeper understanding of the need for self-reflexivity and flexibility when working with community partners:

*Response 1:* Working with our community partner forced me to be aware of my inherent differences as an educated, white woman from the community we were working with. . . . Class discussion/debate also forced me to critically examine my positionality as well as those of my classmates. Important to this discussion is making judgments about when to assert our academic analytical priorities and when to compromise and let PODER's social activism lead the research. Our class examined this question as well as critically examining our own perspectives on the relationship.

*Response 2:* This class certainly helped all of us work flexibly with each other as well as our community partners. . . . I think the effort we made at the beginning at clearly defining our class's mission was central to the success of the project: we were almost always aware of the most important things and this awareness helped us flexibly adapt along the path to work towards this general mission without compromising our own self-interest.

I also included three open-ended questions in the survey, asking students to discuss which, if any, lessons they learned in class that still influence their engagements with community groups. In particular, the class appears to have left a lasting impression of the need to reflect critically on issues of knowledge production and representation, as well as the need for flexibility and adaptability when working with community partners. Although the course outcomes discussed here are intangible and impossible to accurately quantify, it appears that the lessons and experiences—both positive and negative—have remained with students and inform their work today. The following are some of the comments provided by students:

*Response 3:* Now that I am working full-time as a planner, I am able to see how important the work we did was, even

though we did not think we were getting a lot of data or information at the time.

*Response 4:* My experience working with PODER and later in a municipal agency/bureaucracy, is that certain actors approach the process with a conclusion first, and then expect the data to conform to that conclusion. These differing approaches lead to a certain level of conflict. Each group feels that it has a responsibility to its particular mission—the analyst/academic to analyzing data, the organizer to advocating for his/her cause.

*Response 5:* Everyone had a picture in their mind about what the project was supposed to look like, so learning to work with people who had a different picture than me was challenging, but very informative. It was one of my most challenging classes, but at the same time, the most rewarding.

## Discussion

Because of the structure of relationships that shaped the service learning course, the project arguably did more to facilitate the work of PODER than it did to bring marginalized children into the planning process. Although some Zavala teachers use the Web site in their environmental education efforts, the study has been more actively used by PODER in joint presentations with UT-Austin students before the Austin City Council, in community surveys, and in the training of PODER volunteers. Members of PODER, students, and author have presented to Austin's City Council, at Austin's GIS Day, to students and teachers at Zavala Elementary, and for an academic audience at the UT-Austin conference "Abriendo Brecha." The partnership between CRP and PODER still continues through formal and informal speaking engagements in university courses and at community events; the author and PODER will also collaborate on a new service learning course in spring 2010, where students will develop a series of alternative strategies to address the issue of Pure Casting. Thus, the project was successful in initiating a community university partnership that strives for what Campbell (1974) refers to as "genuine reciprocity" but has done less to strengthen the role of children's voices in environmental planning in East Austin.

Ultimately, this unresolved contradiction suggests it is necessary to examine the complex relations of power that produce urban spaces and the boundaries between them; how these relations of power are shaped by multiple, embodied histories, identities, and narratives; and how these ultimately inform the knowledge productions that are implicit in planning practice. By providing students with a more profound understanding of their position within politicized, socially contingent planning processes, service learning courses can help students appreciate the need for flexibility and adaptability in their engagements

with "multiple publics" and thus, from a pragmatic perspective, provide them with important tools to be effective in such complex encounters.

This requires educators to provide the necessary space and conceptual tools to build students' critical reflexivity, which in turn will allow them to engage successfully with multiple publics. I am speaking here of the ability to listen, to speak in ways that are appropriate for different audiences, to wait, to adapt to unexpected situations, to read words and texts for deeper meanings and hidden narratives, and most importantly, to be self-reflective of their own embodiment and expert identities. This form of pedagogy is rigorous and time-consuming and requires the educator to constantly adjust to challenging situations, both in and out of the classroom. However, such challenges are easier to overcome when both teachers and students conceptualize learning as reciprocal and knowledge production as socially contingent. Ultimately, I argue that such an integrated approach to teaching, learning, and doing encourages students to embrace the *unexpected*.

This ability to embrace unexpected challenges is particularly important for participatory planning practitioners, who must be cognizant of the complex and multiple histories, social relations, and grounded (and underground) practices that produce our diverse urban spaces (Burayidi 2000; Looye and Seesay 1998; Sen 2005; Thomas 1996). "Reflective practitioners" (Schön 1987) are expected to provide residents in marginalized communities with a greater and more meaningful role in researching, developing, implementing, and evaluating planning decisions that affect their lives. This, then, means developing a planning pedagogy where students need to adjust their strategies based on a critical understanding of the social contingencies of their knowledge production, which in turn is premised on a critical appreciation of the narratives that shape their identities and positionality. Ultimately, such an "education of self" is a first step in the education of the reflective practitioner. The education of self helps prepare planners to engage in complex, multicultural planning situations where expert rationalities, theories, and methods are challenged, are rendered irrelevant, or even fuel conflicts and where contested epistemologies, rationalities, and narratives of place and people are routinely injected into the most "rational" of decision-making processes.

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### Notes

1. See <http://www.poder-texas.org/>.
2. As part of their course requirements, students developed a Web site where their term papers, maps, and other documentation from the research project are available for downloading: <http://soa.utexas.edu/aeajp/>. The Web site received the 2009 University of Texas Division of Instructional Innovation and Assessment's award for innovative uses of digital technology.
3. Blackboard is a Web-based communication and teaching development service used by UT-Austin: <http://www.blackboard.com/us/index.bbb>. All students' names have been changed to preserve confidentiality. Because of the small size of the class and to preserve confidentiality, this article will not refer to individual students' age, gender, and ethnic background.
4. See <http://www.austinisd.org/schools/website.phtml?id=113>.
5. President Bill Clinton's executive order on children's health ([http://www.whitehouse.gov/omb/inforeg/eo12866/eo12866\\_amended\\_01-2007.pdf](http://www.whitehouse.gov/omb/inforeg/eo12866/eo12866_amended_01-2007.pdf)) and the Environmental Protection Agency's children's health protection regulations (<http://yosemite.epa.gov/ochp/ochpWeb.nsf/content/homepage.htm>) are the key regulatory instruments at the federal level; in Texas, the Texas Commission for Environmental Quality (<http://www.tceq.state.tx.us/>) is the principal state environmental regulatory agency.
6. The course was developed in collaboration with the Volunteer and Service Learning Center of the UT-Austin Office of the Dean of Students and classified as a "class project" by the University of Texas Office of Research Support and Compliance. Each student registered as a "volunteer" with the Austin Partners in Education to comply with requirements to conduct research in Austin School District schools.
7. High school student members of American Youth Works also participated actively in the fieldwork and received GIS and research training from UT-Austin students, as a means of

extending community involvement and provide continuity to the project. See <http://www.americanyouthworks.org/>.

8. It is beyond the scope of this article to describe the research methods and representational strategies in detail. The Web site describes the methods used and hosts students' term papers and maps created during the research project, as well as children's own maps and photography; and the completed GIS maps and data files are available for downloading and interactive viewing. See <http://soa.utexas.edu/aeajp/>.

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## Bio

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