Worlds Apart

One City, Two Libraries, and Ten Years of Watching Inequality Grow

By Susan B. Neuman and Donna C. Celano

Like a bright beacon on the hill, the Lillian Marrero public library rises majestically above the deserted buildings and bulldozed voids below on Germantown Avenue. Here in the heart of what is known as the Philadelphia Badlands, makeshift garbage dumps line the sidewalks. The tall grass that surrounds abandoned lots does nothing to obscure the stacks of tires, worn stuffed chairs, and piles of bottles, bags, and takeout containers indicative of the profound decline in the economy of this part of the city since its heyday in the mid-20th century. Although it's a stunningly beautiful summer day, one that normally draws you outdoors, there's not a seat to be had in the library. By 10:15 a.m., you can hear the hum of dozens of people speaking in hushed tones, groups gathered around the computers, and some 40 others scattered throughout the library, browsing the stacks or reading quietly at one of its nine tables. Every 15 minutes or so, a library staff member sweeps through the room tucking in the vacated chairs, picking up trash and discarded books, and readying the room for the continuing onslaught of new patrons.

Grabbing the #23 bus, and traveling just 6.6 miles from the Badlands, you'll find a strikingly similar scene at the graceful Chestnut Hill library, next to the old trolley turnaround. Here too, the library is bustling with about 20 adults at the computers or selecting books. On this fine warm day, more than 20 preschoolers are cuddled along an architect's replica of a trolley, filled with

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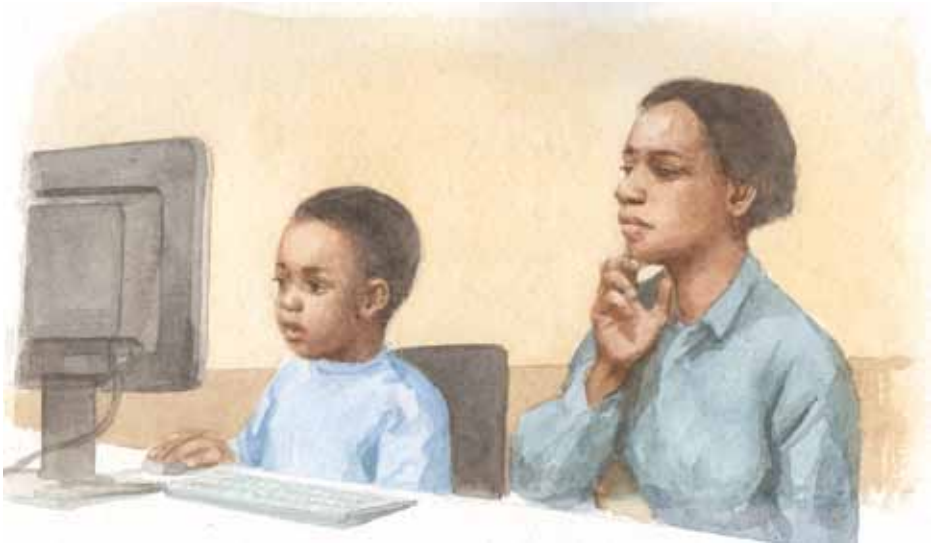
ILLUSTRATIONS BY ENRIQUE MOREIRO

benches and murals, that harkens back to the day when trolleys were the primary means of public transit on this avenue.

"Cut," an enterprising young videographer might say at this point, for this is where the parallels end. Although there are remarkable similarities in the number of people who use these libraries, the nature of the activities within them could not look more different. There is Aquanette at the Lillian Marrero library, who is struggling to use the computer, looking for Section 8 housing after being told that she must vacate her residence immediately. There is Christian, totally engrossed in reading the *Hazardous Materials Endorsement Renewal Manual*, hoping to renew his commercial driver's license from the Pennsylvania Department of Transportation. Several pages of copious notes by his side offer evidence of just how seriously he takes his study, while a thick pamphlet, "Purgatory and Prayer," hints at what sustains him. There is Michelle, watching her only child, Theo, play on the computer, recognizing that her own computer illiteracy will limit the potential for academic achievement of her unusually inquisitive child.



It would be easy to attribute Reynaldo's problems to personality: he was irresponsible or lazy. But we see him daily at the *library*.

In the Chestnut Hill library, there is the mother dutifully looking for guided leveled readers, coaching her 6-year-old so that he's ready to zip right through to grade-level 3. There's little 2-year-old Phoebe, whose mother can't seem to resist giving an informal vocabulary lesson while she reads a story: "It says he has a puzzled expression. What do you think 'puzzled' means?" And there is Beth with her two children in tow, grabbing the latest John Sandford and Jeffrey Archer mysteries for herself along with a couple of Peggy Rathmann and Judith Viorst books, which apparently are always winners with her young girls.

The underpinnings of desperation so palpable in the Lillian Marrero library result from a confluence of circumstances hardly imaginable in Chestnut Hill: Poverty. Segregation. Environments where joblessness and lost hope are the norm. While many of us may vaguely recognize the ghettoization of poverty, few can appreciate how it concentrates in environments that are isolated geographically, socially, economically, and educationally.

This spatial concentration of poverty and affluence—in this case *within the same school district*—virtually guarantees the intergenerational transmission of class position. Poor children barely have a chance to succeed. Rich children have little option not to.

You can see how social geography works against human capital formation at the Lillian Marrero library in the Badlands. Reynaldo, a young Latino man, 22 and out of work, spends time at the library every day trying to learn more about anime, a form of film animation that originated in Japan. He dreams of being a film director or a screenwriter, an interest he developed thanks to his English teacher in middle school. But due to family problems, he dropped out of school in the 11th grade.

Chris, 25, also a regular at the library, enjoys the quiet air-conditioned setting to support his interest in poetry—mostly Langston Hughes. He also studiously works on learning another language, and occasionally uses the Rosetta Stone software on the library's computer. But he, too, dropped out of school. "I enjoyed math at one point, then it all fell apart." As he describes his experience at the local high school, the brightness in his eyes now dims. Until now, Chris had been sitting tall, leaning slightly forward, animated in describing his interests. Now he leans back and slumps down, his body language divulging volumes.

It would be easy to attribute Reynaldo's and Chris's problems to some personality or dispositional factors: they were irresponsible, lazy, or lacked the desire to excel in school. Such designations reflect a characteristic feature in social psychology known as the *fundamental attribution error*,[1] which is the general tendency for people to overestimate individual factors and underestimate situational factors. But the very fact that we see them and their friends daily at the *library*, not at a bar or a pool hall, indicates that situational characteristics are at work. It is not that Reynaldo and Chris have few aspirations; it is that neither has been born into a social position with the resources that could give them a fighting chance.

Same City, Different Paths

"Picture perfect" is how you might describe the gentrified neighborhood of Chestnut Hill. As you stroll down Germantown Avenue, the community's main thoroughfare, you will find a

streetscape that is beautifully maintained and full of pedestrians enjoying it. The quaint mile-long business strip along the tree-lined main street is home to a range of stores—everything from an independent pharmacy and a shoe repair to art galleries, day spas, antiques dealers, restaurants, banks, and much more. The sidewalks and streets are swept clear of debris, expensively wrought metal waste receptacles are emptied before they get full, and meticulously designed window boxes, sidewalk planters, and hanging baskets add a homey splash of color. A wide variety of 19th- and early 20th-century residential buildings have been preserved, owned nowadays by attorneys, business executives, and other professionals. Although a growing number of professional African American and Hispanic families have moved into the area, with a fair number of recent immigrants from South America and Eastern Europe, nearly 80 percent of the population is white.

Inviting and calm, pleasant and clean, it's tempting to stay and hang out for a while in one of Chestnut Hill's outdoor cafés. The determined traveler, however, has only to catch the bus down Germantown Avenue, and within the span of four or five songs on your iPod, you soon come to another world.

Here, as we turn off Germantown Avenue onto Allegheny Avenue, is the heart of the Philadelphia Badlands. Again we find historic buildings, but the churches and residences are now skeletons of their former grandeur. Row houses are boarded up. A large school stands abandoned. Graffiti adorns high walls. The few businesses operating here close their doors early each day, shuttered behind high iron gates. Families strolling down Lehigh Avenue face what looks like a war zone. Trash is everywhere: mounding up on sidewalks, floating across streets, and hiding under cars. Young men hang out on street corners brazenly selling drugs. Gang activity is a constant. Communication among groups often breaks down. About 53 percent of the families speak English at home while 46 percent speak Spanish as their primary language. Nearly all children born here live in households below the poverty line.

These contrasting ecologies of affluence and poverty have become the source of increasing racial prejudice, growing class stratification, and widely different opportunities to become well educated. To break down these barriers, a number of major foundations in the city have focused their funding on creating comprehensive community-based initiatives, rooted in the belief that institutions can serve as key leverage points for stimulating social change. One such initiative came from the William Penn Foundation. Starting in 1996, the foundation launched a $20 million effort to transform 32 neighborhood branch libraries in the city into a technologically modern urban library system. Its goal was to enhance access to print and technology for all children and families in Philadelphia.

Could libraries serve as a fulcrum for leveling the playing field? Might they serve to promote reading and the development of information capital? The foundation asked us to examine these and other questions. In each community, stunning Carnegie libraries—Chestnut Hill's in Georgian Revival style and the Badlands' in white limestone Grecian style—stood as their center. From this vantage point, we could study how each of these communities engaged students in the development of reading and information capital in a context where resources were fairly equal.

We developed a series of studies to examine how these environments influenced individual behaviors and, in turn, how individuals influenced the environment. Along with a multiracial team of 10 doctoral students in urban ethnography from Temple University, we engaged in multiple fieldwork techniques—situated listening, observations, and interviewing. Each study was informed by the previous analyses, giving us a richly detailed understanding of activities and interactions not limited to a single setting, but designed to contrast settings. In all, we conducted 21 different studies over 10 years—roughly 1998 to 2009. Here, we attempt to interweave our data to better understand how children from these two very different communities develop and become educated.

We canvassed each neighborhood, walking the streets, riding the buses, and taking the subways. We visited community institutions in the neighborhoods—child-care centers, elementary schools, and local organizations. Knowing that children learn about print through contact, experiences, and observations of written language used in their everyday lives, we looked at a range of experiences, trying to understand how the environment might either support or deny children's access to print. To better compare and contrast these environmental factors, we counted the quantity and selection of children's books that parents could conceivably purchase in the neighborhood, the public areas where children might observe people reading, the quantity and quality of books in the local child-care centers that children would most likely attend, the quantity and quality of books in the local elementary school libraries, and even the print signs, labels, and logos in the environment. Although each of these influences most likely plays some role, together they play a powerful role in helping to shape young children's entry into print and the world of information.

The contrasting ecologies of affluence and poverty are a source of increasing racial prejudice and widely different opportunities to become well educated.

We found inequities in the number of resources, the range and quality of materials, the availability of public space and places for reading, and the amount and quality of literacy materials in child-care centers and in elementary schools. Differences in the economic circumstances of children who live in these neighborhoods translated into extraordinary differences in the availability of print resources.

But enter the local libraries and you enter another world. Here, resources are close to equal. Book collections at both

branches are extensive, with nonfiction sections full of local culture. You can find an old favorite or something brand-new in the varied fiction collection, and borrow an eclectic assortment of music CDs, audio books, or DVDs. Branch managers are experts about their local communities, knowing many of their patrons by name. Both children's librarians are welcoming, knowledgeable, and never seem to have met a child they couldn't wow with a good book.

In these stately stone buildings with their tall, arched windows and high, high ceilings, there's a natural experiment in the making—an ideal setting to watch how reading patterns compare in these two communities in the one place where the playing field of reading resources is more level. Although the Chestnut Hill branch might boast that it has 34,747 items in its adult/teen collection and 24,306 items in its children's collection compared with Lillian Marrero's 23,489 items for adults/teens and 17,953 items for children, at least to the untrained eye, there's a similar effect. What you see is akin to a candy store of reading choices including newspapers, magazines, and books on every imaginable topic.

Striking similarities initially appear: teens in both libraries spend the same amounts of time reading. It's not until you look below the surface that you find striking differences.

Striking similarities initially appear in the patterns of reading in these two different neighborhoods: adults and teens in both libraries spend almost exactly the same amounts of time reading and in related activities. It's not until you look below the surface that you find an equally striking pattern of differences, reflecting both the immediate effects of the environment and its longer-term impact on the development of information capital.

Let's take a look at the young adult section. Here, the activity in both libraries is dense and active. We tally 157 teenagers, or about 8 teens per hour, at the Lillian Marrero library, and 115, or about 6 per hour, at Chestnut Hill. But when we look closer, we begin to notice a curious pattern: in the Badlands, although students read at their age level about 58 percent of the time, 42 percent is spent reading down. You might see, for example, early teens reading *Highlights* magazines, books from the Dr. Seuss collection, even board books—materials that are far below their age level. Compare this with students from Chestnut Hill: most of their reading is at their age level (93 percent), with a small percentage reading up using above-level materials (7 percent).

Although the amount of time spent reading is almost equivalent in both settings, the challenge level is strikingly different. Given that low-level resources are likely to have limited relevance to their current lives, why would students from the Badlands select materials of lesser challenge? Could it be because these students are poor readers? Does it have something to do with self-efficacy, their perceived beliefs about their reading abilities? Or might it reflect how they are socialized early on about reading and its purposes? We turn to the preschool sections of the libraries to look for the answers.

Same Curiosity, Different Opportunity

In the often-caverned preschool settings, we adjust our strategy: we look at the activity pocket of the setting more globally to understand how children become socialized around books. We conduct our observations in two-hour increments for a total of 20 hours in each setting, attempting to capture interactions with toddlers and preschoolers around books. Additionally, we note the approximate length of stay throughout the visit as well as the family member who generally accompanies the child. Our observations indicate stark differences in attendance, activity, length of stay, and checkouts.

It starts with the adults. In the Chestnut Hill library, children always seem to enter the preschool area accompanied by an adult—most often their mother but occasionally a father, a nanny, or a grandmother. In comparison, in the Badlands, young children almost always enter alone, sometimes with a sibling but very rarely with an adult. Occasionally, an older brother or cousin might help locate a book or read to them. But more often than not, we see short bursts of activity, almost frenetic in nature. With little to do, children wander in and out with relatively little focus. Rarely are books checked out.

For children in Chestnut Hill, the activities are highly routinized. Invariably, the accompanying parent takes charge, suggesting books, videos, or audio books to check out. Sometimes the parent might pull a book down and let the child examine it or ask a child what types of books to look for. But the parents are clearly in charge: in a very authoritative manner, they sometimes note, "That book is too hard for you," "That is too easy," or "This one might be better." Parents steer children to challenging selections, sometimes appeasing them with a video selection as well. Visits are brief, highly focused, and without exception, end with checking out a slew of books and, often, DVDs.

Inside the spacious preschool area at Lillian Marrero, separated from the rest of the library by "castle walls," we find bins and baskets, crates and shelves full of books, and small tables with computers. We watch a father with two children in tow enter. He spreads some papers on a table. "Go sit down! You're in a library!" he says in a loud whisper. "Go get a book," he orders. One child sits in the stroller while the preschooler picks *Henry's 100 Days of Kindergarten*, a brightly illustrated picture book, and starts to page through it. After a few minutes, she turns to her dad and says, "Can you read this? Please?" Looking like he'd much rather finish his work, he gives in. With the child sitting next to him in the little chair, he begins to read haltingly, pointing to each word as he goes. "In February, it sn… sn… um… snows." "In June, Henry likes… ice… cream." He stops, "Hey, ice cream," recognizing the word he just decoded. "I love ice cream, don't you?" The little girl positively beams. He takes about 10 minutes to read the book, studying the pictures and saying each

Dan, the "Science in the Summer" Man

There's something incalculable about developing expertise. It is inherently motivating—even for young children. As intuitive scientific thinkers, they seem to have an instinct for seeking out evidence, noticing patterns, drawing conclusions, and building theories. When they have an opportunity, that is.

We're in the same small room at the Lillian Marrero library that we have visited so many times before. But today, something is different. It's quiet. Here sits a group of 5-year-olds, intently listening to a discussion of combustion and gases. They are wearing safety glasses, like those you would see in a science lab. In front of the room is Dan, the "Science in the Summer" man, dressed in shorts, sneakers, and a lab coat. He reminds us strikingly of "Bill Nye the Science Guy," only without the bow tie. In bright letters on a nearby whiteboard are the words "physical change, chemical change, atom, and element." It seems like pretty heady stuff for 5-year-olds.

Dan has given them a problem to solve. Each child has a piece of paper. He asks, "Can you make paper stretch?" "Nooo!" the group giggles and squeals with delight. "But what if we changed the physical properties of the paper?" Dan asks as he whips out a pair of scissors.

He hands them each a pair of scissors and asks them to solve the puzzle. It's a pretty complicated task, but the kids handle it well. He talks throughout:

> Dan: Very good! You are amazing! You figured that out all on your own.
> Destiny (about her friend Louis): He's slow!
> Dan: It's okay. Everyone goes at their own pace.
> Cinai: I messed up!
> Dan: In science, we don't call it mistakes. In science, it's just, "Look! I did something new."

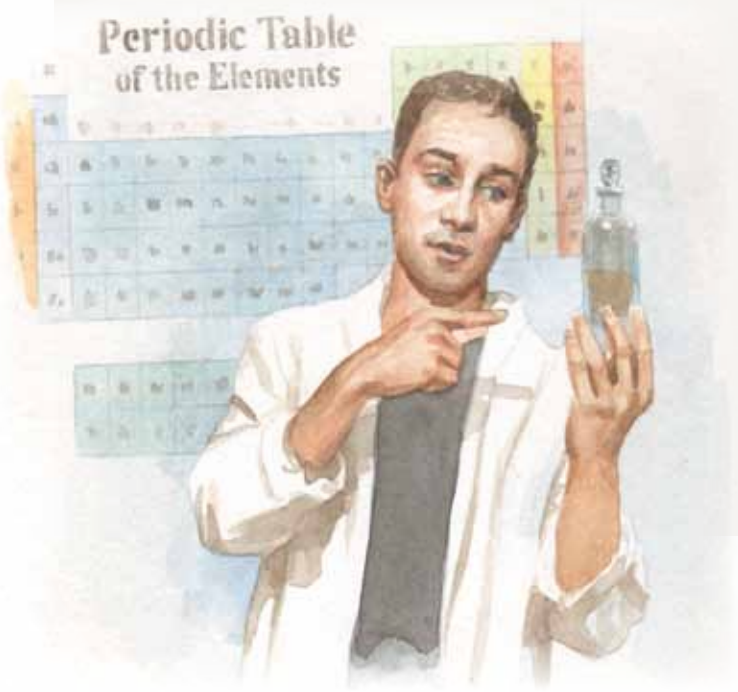
After the kids "stretch" out their papers, Dan says it's time to work on "other kinds of physical changes." He brings out other materials with different physical properties, and then pulls out a cylinder filled with baking soda. He pours vinegar on the baking soda, and the kids do "oohs" and "aahs" over the eruption. They talk about the many uses of baking soda in cooking. Dan explains, "What we just saw was a chemical change. How did it happen?" Louis adds, "I think it's because of the pressure. There is nowhere else for it to go."

To our astonishment, now Dan pulls out the periodic table. He gives each kid a smaller version. He talks about the different symbols and colors: "Orange is for gases, blue is for liquids, white is for...?" "Solids!" the children chime in. He goes on about Au (gold), NaCl (sodium chloride), and all the differences among gases, liquids, and solids, to the children's delight. He then gives them each a penny, a cup of vinegar, and some salt; he asks them what they think will happen. The conversation is lively, not noisy, but energizing as the children try out their ideas in simplified experiments. A solid hour passes before they take a break.

Watching the entire activity, a colleague of ours later on raises some concerns. "It's great that the kids were so engaged, but his material is way over these children's head. Come on… explaining physical properties… to 5-year-olds?" How predictable. If this activity had taken place in the Chestnut Hill library, parents and relatives would be chortling over how their precocious little scientists were learning about the periodic table. Here at Lillian Marrero, there was concern that the material was developmentally inappropriate.

Just about the best empirical evidence of whether something is or is not developmentally appropriate, however, is to watch children's behavior. Throughout the entire hour, they were actively engaged, putting together facts that would enable them to develop their scientific reasoning. They were getting a sense of the different kinds of things scientists do in their professions. Dan was helping them weave together multiple moments of learning into a broader domain. He was supporting their interests and building expertise from everyday activity. To us, he wasn't just another camp counselor. He was a hero.

–S.B.N. and D.C.C.



word slowly as he points. When he's finished, she asks, "Can I take this home?" "Not this time," he answers.

Other parents seem distracted, lost in their own worlds. A mother sits 10 feet away in a chair marking her book with a yellow highlighter while her 6-year-old son explores the stacks alone. He forays several times for books, returning with selections to show his mother for her approval. "No, we've already seen them," she says, sending him back to find something new. He returns several minutes later. Collecting what appears to be one, two, or three items from him, the mother gathers the rest of her belongings. Before she heads for the door, she points to the librarian who is now sitting at her desk. "Say bye to the lady," the mother says to the little boy. "Bye-bye, lady," he dutifully responds.

As you enter the preschool area of the Chestnut Hill library, you are immediately confronted with a bit of a crowd scene—the couplings of parents and children together, poring over books,

making selections or just reading together. In quiet voices, you hear a good deal of "parentese"—the sing-songy set of tones that the mothers and fathers use when they are talking with their young children. A mother will slow down her language and articulate each sound as her child looks at the pictures in a book. In response to her 18-month-old toddler's interest in reading "Pip-Pip," a mother grabs the book *Pippa the Dinosaur* and says, "That's right, it's Pip---pa the Dinosaur."

The parents are highly attentive to their children. Phoebe, age 2, bounds up to her mother with a board book to read. Although her mother is talking to a friend, she stops and instantly turns her attention to her child. She reads the first page, "I've got sunshine on a cloudy day." As the child looks at the picture, her mother adds, "I think this is a song." She turns the page. Phoebe points to the baby in the photo, and the mother asks her, "What is the baby doing? What does this baby have?" Little Phoebe doesn't answer. The mother asks another question, trying to help Phoebe respond. She points to the colorful toy guitar that the child in the picture is holding. "What is that?" No answer. "What does this look like?" the mother gently persists. Phoebe whispers in her ear, "A guitar." "Yes. It's a play guitar, but not like Daddy's. His is made of wood. Who is holding the baby?" Phoebe answers, "A daddy." "Yes, it looks like Daddy." The interaction comes as close as you can get to a textbook example of instructional scaffolding, the kinds of helpful interactions between adult and child that enable the child to go beyond his or her current expertise. The mother clearly defines her expectations and, at the same time, supports Phoebe's ability to negotiate meaning through oral language.

Material resources represent only one kind of support for reading development. There is a more critical factor: class- and culture-based parenting practices.

The paradox of leveling the field is that in equalizing resources, the field is still unequal. Material resources, even when they are comparable in libraries, represent only one kind of support in creating an environment for reading development. We clearly see that there is a more critical factor: class- and culture-based parenting practices. Parents' active monitoring and guiding of their children's activities at Chestnut Hill are examples of "concerted cultivation," the child-rearing strategy identified with middle- to upper-middle-class families.[2] These mothers often have the luxury of part-time employment and/or nannies that allow them to devote "quality time" to their children. In contrast, children in the Badlands are more likely to be raised in a spirit of "natural growth," a child-rearing strategy in which children learn implicitly and explicitly—but not very efficiently—through observation and their own experiences. Many of these parents work long hours at low pay and struggle with ever-changing work shifts. As a result, young children often spend less time in the company of adults such as parents or teachers, and more time with other children in self-directed, open-ended play (for which affluent parents often profess nostalgia these days). The effects of these differing strategies—which are not only a matter of resources but also of beliefs and habits—are to reinforce class divisions.

For early literacy, these differences have profound implications. In the spirit of concerted cultivation, toddlers and preschoolers in Chestnut Hill appear to be carefully mentored in selecting challenging materials; in contrast, those who experience the process of natural growth in the Badlands receive little, if any, coaching. Left on their own, these children resort to playful activity of short bursts, picking books up and putting them down with little discrimination and involvement. In Chestnut Hill, activities are carefully orchestrated to encourage reading for individual growth and development; in the Badlands, no such mentoring is available—the children are on their own.

In our quantitative data, the patterns are clear. In the Chestnut Hill library, for every hour, 47 minutes is spent by an adult reading to a child. Estimating the number of words children would hear within this hour (based on the length of the book and the time spent reading), we calculate about 2,435 words and their referents in print. During the same time period, not one adult entered the preschool area in the Lillian Marrero library. A generous estimate of words the children likely experienced as they flipped through

books is 180, none of which were "read" to the child or decoded. By our estimate, we figured that children in Chestnut Hill hear nearly 14 times more print words read to them than those in Lillian Marrero.

Same Computers, Different Uses

With its small-scale furniture and its sense of detachment from the rest of the library, the early learning computer station at the Lillian Marrero library is a bit of a haven for the younger set—toddlers and preschoolers, their siblings and friends. The computers are standard issue but the keyboards are child-friendly, brightly coded with primary colors to identify the alphabet keys apart from the function keys. On the monitors, icons of a musical keyboard cue children to a host of math and reading choices and other programs. There's the Curious George software featuring a nice reader-friendly voice, the Reader Rabbit learning-to-read series, the Kidspiration software, and book-game sets like *Stellaluna*, *The Cat in the Hat*, and *Green Eggs and Ham*, all seeking children's attention.

The play, however, is not as self-sufficient as it appears. Toddlers and preschoolers, although they appear capable, are not all that intuitive at negotiating the software. Subtle things throughout programs require adult assistance and interpretation. This occurs with both the nomenclature, such as "mouse," a term that doesn't make sense to a small child, as well as the poor choice of words sometimes used to illustrate the lessons, including the letters of the alphabet.

Without help, children can revert to random clicking—similar to the way they flipped through books. We watch as a preschooler, alone, runs her cursor over a few icons, each shouting out its name. Picking *Green Eggs and Ham*, she clicks on it and two options appear: "Read to me" or "Play the game." She starts the game, but can't follow the narrator's directions. Soon she clicks to another program, eventually becoming equally frustrated. She starts clicking away randomly, switching from program to program. In less than two minutes, she clicks, switches, clicks, switches about 20 times. As her frustration grows, she starts pounding on the keys as if they are a piano—until the computer screen freezes.

She needs help, yet behind her, sitting quietly, is her mother, who is watching. She does not offer assistance. There is no interaction between them. Once the program freezes, the child runs off in another direction with her mother trailing behind her.

This is the pattern we would come to document after the technology had been in place for about two years. With little supervision, random clicks would inevitably lead to computer freezes, breakdowns, and frustrations. We reasoned, however, that once the adults became more comfortable with computers, and once the technology glitches were sorted out, patterns would change. And we were right—to a degree. The technology did improve, with computers less susceptible to freezing and breaking down. But the patterns of the adults remained remarkably stable. In the Lillian Marrero library, children were generally on their own.

A few years later, for example, we observe a mom and her four tots, about 3 and 4 years old, all watching the *Green Eggs and Ham* story in the computer area. The children are glued to the screen. It is very much like TV—the words come up on the screen and a narrator tells the story accompanied by sounds and music. The group watches it for about 10 minutes. The parent sits toward the back of the group. She says nothing, and there is no interaction or discussion about the computer activity at all. After the program is over, one of the children pulls up a reading game associated with the story. This game requires the group to become more involved. One child controls the mouse; the others are really lost about what to do. "How do you do this?" one boy asks his mom. She shakes her head and does not offer help. The boy clicks away, obviously lost. Soon an older girl, around 12, comes over and takes over the activity as the other children watch. After a few minutes, the mom gets up. "Come on, it's time to go."

Sometimes we observe parents trying to cheer on their children—but from afar. We watch a small gang of little boys, ages 4 through 9, playing a computer game. We quickly see that the 5-year-old is clearly in charge. An older child tries to take over but has to ask the 5-year-old what to do. Together they play for at least 20 minutes. At various times, the mother calls out encouraging things, such as "Way to go!" and "How about that!" Other than that, she does not comment. She stays in the back the entire time. Children address their questions to the 5-year-old, who "knows more than any of us," said the mother.

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Without parent support, the computer began to take on a role we had not anticipated in our initial analysis: the video arcade. Despite the carefully crafted phonics lessons, alphabet activities, and well-told stories, most software programs reward children with games. Just like the video arcade, children can move through lessons rather haphazardly—selecting options at random to reach the ultimate reward: fireworks, clanging of bells, and/or shoot-'em-up galleries. Left to fend for themselves, this is exactly the activity we found young toddlers and preschoolers engaged in on the computers at Lillian Marrero.

At the Chestnut Hill library, ambivalence might be the best word to describe parents' reactions to the preschool computers, at least when they first arrived. Frequently parents would steer children away from them, saying, "We're not here for the computers. We're really here for the books!" But especially in the beginning, when children gravitated to the computer anyway, mothers would remain highly involved in the process. Rather than fight it, they soon joined in on these activities.

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Don't Level the Playing Field

Tip It Toward the Underdogs

Our research describes how the contrasting ecologies of affluence and poverty contribute to disparities in the development of information capital. To reverse the growing polarization between the so-called haves and have-nots, here are six policy recommendations, recognizing that they represent only a beginning to a much-needed process of serious thought, reflection, debate, and action.

1. Unlevel the Playing Field: Too many government programs, like Title I, as well as foundation efforts are aimed at "leveling the playing field," giving high-poverty students a leg up by equalizing educational resources with more affluent communities. Today, the "comparability" provisions in federal and state funding programs, for example, are still the tools that officials use to ensure equal educational opportunity among lower- and higher-income students. But as we have seen, equal community-based resources do not create equal opportunity. We need to provide more resources and additional supports to students in poor neighborhoods. As a policy strategy, "resources" are most frequently defined as extra funding. Surely, additional funds targeted to more computer and Internet resources in the Badlands would help make up for the fact that most of the neighborhood students do not have high-speed Internet access at home. However, additional targeted human resources are needed as well. Placing more adult mentors in the preschool area in libraries is just one type of additional support that could have enormous implications in the amount, type, and quality of early shared reading. Using technology specialists to create and guide children through knowledge-centered Internet environments is another type of additional support. Training assistants to craft opportunities for more intensive engagements with resources (no more random flipping and clicking) is crucial for these children's further learning. Whether through mentoring, additional adult involvement, more challenging and culturally relevant learning opportunities, or higher-quality parent-child interactions, the goal should be to compress more experiences and practice into the time available.

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2. Parent Involvement Training: Nearly ubiquitous, the story hour in libraries has introduced millions of youngsters to the joys of reading and listening to stories. But the story hour could do more: there is an important role for librarians and teachers to play in training parents in the skills associated with successful reading. In our experience, parents in the Badlands wanted to provide children with a good start; however, they often didn't know what they could do to help.

Helping parents understand which skills and capacities children will need to become successful readers builds social capital. Such knowledge helps parents make judgments about what kinds of language and literacy experiences to look for in preschool and child-care settings, what to look for in initial reading instruction in kindergarten and the early grades, what to ask principals and others who make decisions regarding reading instruction, and whether their child is making adequate progress in reading or needs additional instruction. In short, parent training ought to unlock the mystery of what it takes to ensure children's success in school.

Literacy begins in infancy, with a child's first exposure to language, and then progresses in rather predictable ways through language learning, vocabulary and knowledge accumulation, early exposure to books and to the sounds and symbols of language, experimental play with reading, accurate decoding, and fluent reading, all the way to the most advanced forms of reading to learn and constructing meaning from multiple texts. We need to help parents understand the crucial role they play in children's early lives. Parents are not just disciplinarians, backup teachers, or homework completers; when they have the necessary knowledge and skills, they are supportive coaches and guides as their children learn to read. The informal, everyday literacy lessons they provide for young children—by reading to them, telling them stories, and cheering on their efforts to learn—shape what children know and how they come to see the place of literacy in their own lives. It is imperative that we engage all parents in these endeavors.

3. Computer Training and Assistance: "Googling" has become common parlance to many people. It is not familiar to all, however, particularly those in low-income communities. The digital divide is still an unfortunate byproduct of living in poor areas where Internet access is often limited or unreliable.

If libraries are to provide equal access to resources for all our citizens, we must consider interventions and trainings that strategically provide information navigation skills to adults and their young children to promote more educational uses of the library resources. Recent advances in technology offer extraordinary support for reading development and information gathering. However, as we saw throughout our observations, these resources will not be used to full advantage without training and support. These new technology tools are not self-teaching; pre-readers and beginning readers need the careful scaffolding of an adult who may use the clever animations and multimedia characteristics in ways that turn the work of reading into play. Even the most comprehensive software cannot substitute for the power of adult guidance and support for enhancing student learning.

The main article and this sidebar are excerpted from *Giving Our Children a Fighting Chance: Poverty, Literacy, and the Development of Information Capital* by Susan B. Neuman and Donna C. Celano. Based on 21 studies conducted over 10 years in two neighborhoods, it offers a new lens on the achievement gap—and the need for both school and community solutions.

4. Access to Information: It seemed like a yearly ritual: throughout our 10 years of studies, city budget allocations for libraries would be on the cutting block. Particularly in the poorest neighborhoods, budgets would be slashed, and libraries even threatened with closure. Supposedly saving precious taxpayer dollars, hours of operation would be curtailed, weekends limited, and librarians inevitably asked to do more with less. In essence, access to information for poor families and their children was seen as expendable.

It seems as if we have forgotten how valuable libraries are to our society. We expect much of them—from helping us perform our civic duties to understanding our fundamental rights in a democracy—but often we give little in return in terms of public support. Nevertheless, the library as an institution has continued to serve its mission: to support the virtues of information and reading, to offer people opportunities to read what they choose rather than what is chosen for them. Unlike school, the public library has no predetermined curriculum or pedagogical emphasis; rather, it is designed as neutral space available to all. Historically, this institution has helped to reduce inequity by making information readily accessible to the community at large. Today, it is serving this role as nearly the sole safety net for those who lack access to print and other technologies.

Library closures, limited hours, and diminished services do great harm to all citizens, but especially those in poor neighborhoods. Instead of closing them down, we need to recognize their central role in revitalizing communities and support them with greater funding. Libraries in our neediest communities should be open longer, with a greater number of resources and services. They serve as a lifeline of information to their local citizens.

5. Engage Students' Minds: Far too often, people underestimate the capabilities of students who live in poor neighborhoods, equating poverty with low ability. In reality, these students are eager to learn and develop greater expertise if given opportunities to do so. It is so rare, unfortunately, that such opportunities are offered to them.

In the Badlands, there are few preschool options; the Head Start and Even Start federal programs offer high quality but limited hours of care. More than likely, a child here will go to a local church-based program or be raised by a relative, such as a grandmother. The unsettling work patterns and varying shift schedules makes stability in child care nearly impossible. One or two decrepit playgrounds offer children a place to play. A few community organizations proudly exist, but their focus is on keeping the impinging ills that accompany poverty—joblessness, drug use, teen pregnancy—in check, rather than providing an enriching environment for children. Observing summer programs, we saw students treated to a pabulum of mind-numbing activities that merely filled up the hours until the summer was over.

Students come to expect less and give less in return. They perceive themselves as poor learners and seek avoidance strategies, including dropping out mentally or physically from school. These students need adults who believe in their abilities and trust that they are capable learners. They need programs that help to develop their expertise in domains of interest and offer immersion in communities of practice, recognizing that enculturation lies at the heart of learning. When we give students opportunities to become involved in cognitively stimulating topics that spark their interests and imaginations, we begin to tap their extraordinary potential.

6. Economic Integration: Schools today reflect their neighborhoods. In geographically concentrated neighborhoods of poverty, children will attend schools in which over 90 percent of the students are poor. Similarly, in geographically concentrated neighborhoods of affluence, children will attend schools in which over 90 percent of students are affluent. Throughout our country this pattern persists: schools are economically segregated, further exacerbating the problems of inequality.

If we are truly committed to improving the education of poor children, we will have to get them away from learning environments smothered in poverty. Schools in poor areas typically struggle for many reasons, but among the most prominent are their rotating faculty of inexperienced teachers, low-level curricula, and ineffectual administrators. In contrast, schools in affluent areas, on average, are more stable, with more highly trained teachers, more rigorous curricula, fewer discipline problems, and more support from volunteers.

Studies have shown that economically integrating schools can be a feasible strategy for changing this scenario.[1] This is being done in some places with impressive results. An important study conducted in Montgomery County, Maryland, showed that low-income students who were enrolled in affluent elementary schools performed far better than similarly low-income students in higher-poverty schools in the county—even when the higher-poverty schools were given extra resources.[2] After seven years, low-income students in affluent neighborhood schools cut the large initial gap with middle-class students by half in math and by one-third in reading. Students performed at almost half a standard deviation better than comparable low-income students in higher-poverty schools. Further, achievement scores for the middle-class students did not decline or show evidence of any negative effects.

–S.B.N. and D.C.C.

Endnotes

1. Richard D. Kahlenberg, *All Together Now: Creating Middle-Class Schools through Public School Choice* (Washington, DC: Brookings Institution Press, 2001).

2. Richard D. Kahlenberg, ed., *The Future of School Integration: Socioeconomic Diversity as an Education Reform Strategy* (New York: Century Foundation, 2012).

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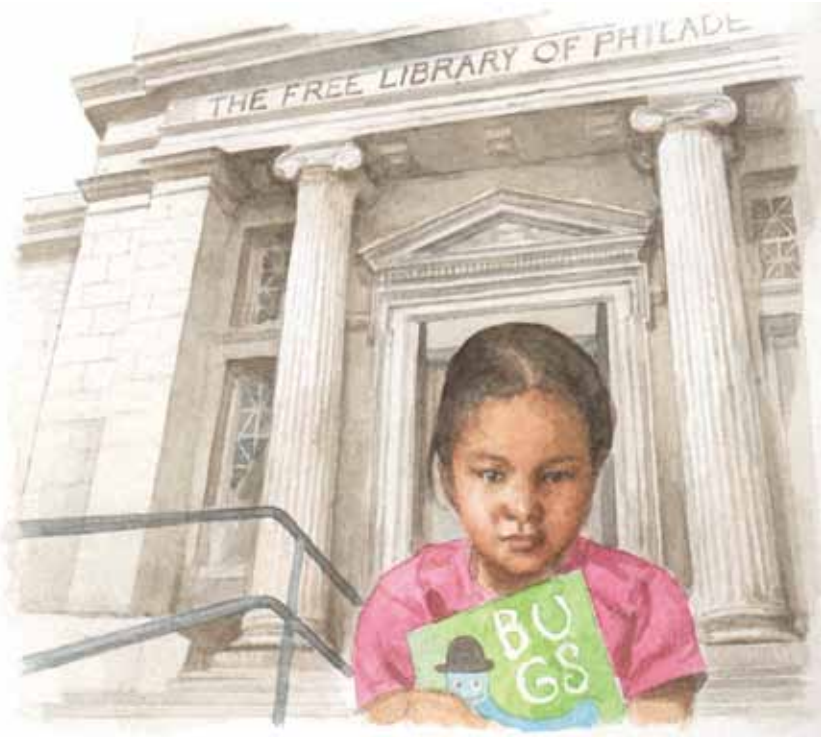
Four-year-old Scott and his mother are having a great time playing Millie's Math House. He is using the mouse and generally doing okay. His mother gives him directions, encouragement, and suggestions on how to play. She is very involved, laughing when something amusing happens on the screen and rubbing his back when he does something right. She is seated very close to him and very close to the screen. "See that one has seven jellybeans, but you need five jellybeans for it to go into the #5 slot. So what do you need to do?" Scott clicks on the appropriate thing, and his mother rubs his back saying, "Good job!" He stays with this activity for a while—about 10 minutes—while his mother continues to sit with him.

Although borrowing books might be the focus of these parent visits, the computers are the children's. Responding to children's interests, parents will put their books aside to assist them. One mother, already with a pile of picture books, runs after her toddler, Ava, who sees Reader Rabbit Toddler on the computer screen. Immediately, it becomes a teaching lesson. "Okay, Ava, you need to match the 'J' to the 'J' train.... That's right, 'D' is for door! Okay, you have the 'D,' now get the 'E,' and where's the 'F'? There you go!"



Without parent support, the computer took on a role we had not anticipated: the video arcade.

What might these patterns reveal about the promise of technology for leveling the playing field? We found striking similarities in the patterns of parental behaviors across book reading and computer activities. For parents in Chestnut Hill, computers seem to represent a new competitive tool to drive their young children toward greater competence and achievement. In our observations, it was virtually the norm, not the exception, for parents to use the programs to drill children (through computer play) in letters, sounds, and numbers. For parents in the Badlands, computer use was at the whim of the child and his or her interests. Most often, this would mean either rather frenetic play, with multiple applications attempted, then dropped, or advancing toward the end of the program to reach the games that were designed to serve as rewards for learning. In either case, computers were used as play without their concomitant learning advantages.

Throughout our observations, therefore, we saw pernicious signs that the very tool designed to level the playing field is, in fact, unleveling it.

The Internet may have fundamentally changed how we read, write, and gather information. Nevertheless, these new skills are actually built on some old, foundational literacy skills—the ability to decode and comprehend text. In fact, you could argue that basic literacy skills are even more essential than ever, serving as the entry point for the kinds of sophisticated skills that students will need to use media and complex information systems.

Unlike school texts, texts online are not carefully calibrated to readability levels. Vocabulary, concepts, and content may be dense, and sentences long and complicated. Words can take on specialized meanings (e.g., "operation" has very different meanings in mathematics, medicine, and day-to-day discourse). Getting the meanings of words in these complex contexts, however, is only a precondition of comprehending materials online. The second part is world knowledge. In other words, to make use of the words you are reading, you will also need a threshold of knowledge about a topic.

Same Facilities, Different Results

The William Penn Foundation, in many ways, succeeded in providing greater access to information and technology. In five years, it transformed Philadelphia's neighborhood libraries, 32 in all, into technology-rich centers. Today, visiting a neighborhood library, you are likely to find collections that reflect the local culture backed by murals that typify its history and specially designed architectural features that allow for the intimacy of independent reading, as well as Internet areas, an abundance of current resources, and throngs of people using its services.

At the same time, despite this enormous effort, the initiative fell short of its goal to close the disparities in resources among communities. What became clear during our analysis is that while the initiative could greatly improve access to material resources, it could not make up for the intangible social and psychological resources—the parents and other adults who make the many pathways to reading and information-seeking meaningful and

important to children.

In their very early years, children were initiated into reading and library activities in different ways. In Chestnut Hill, parents were ever vigilant and seemed to take pride in their scaffolding role, offering help, instruction, and encouragement to their children. Expectations for performance were high but so were the rewards for progress. On the other hand, parents in the Badlands appeared to support their children's independent explorations, bringing them to the library to find resources on their own and, occasionally, receive instruction from others. These activities appeared to establish a pattern of print and media preferences and habits, with one group of students reading up and increasingly using media for information and challenging purposes, while the other group was reading down and seeking media for entertainment. Soon we began to see a pattern of what we called "the more the more, the less the less," with students who were able to read fluently reading more and acquiring more information, while other students seemed to develop avoidance strategies, merely tolerating reading without the cognitive involvement associated with reading for comprehension.

Children who get a fast start in reading are more likely to read more—and reading develops vocabulary, general knowledge, and information capital.

Over the 10 years we spent in these two libraries, the gap in the amount of time adolescents spent reading increased substantially. Regardless of technology (books or computers), reading tends to predominate in Chestnut Hill but not in Lillian Marrero. After years of technology improvements, there is now a larger gap between these two communities in the amount of time spent reading than before. In fact, our rough estimates indicate that 10- to 12-year-olds at Chestnut Hill were reading more than twice as many words as their peers at Lillian Marrero.

As our research clearly shows, print and media habits established in the formative years result in differential practice with reading and create differences in the speed of information gathering and knowledge acquisition. As the information flow increases, it will be harder and harder for those who lack reading fluency and are not developing broad knowledge to keep up. Consequently, the patterns we see in Chestnut Hill and the Philadelphia Badlands act like an invisible wall, keeping each group insulated from one another, slowly creating a divide that becomes more and more difficult to cross over.

Today, the prosperity of companies and nations has come to demand high-level human and information capital—knowledge workers—who can mobilize their skills and talents to promote innovation and greater productivity.[3] Information capital is comprised of two modes of reasoning. The first and most common mode is knowledge based.[4] This sort of reasoning is rapid, extensive, and automatic, and powerfully increases as the cumulative product of a person's experiences with words and the concepts to which they refer. The second mode of reasoning is slow, conscious, and rule based, and involves logical, analytic thought.[5] Both forms of information capital accrue through first- and secondhand experiences. Young children frequently acquire knowledge about the world through firsthand experience. Everyday play activities and conversations with adults and their peers provide many initial opportunities for building knowledge. However, much of the information they will need as they grow older will not be available through conversations and experience. They will need to rely on a second source of information: print. Reading represents a unique interface with the environment, providing access to the cumulative wisdom and knowledge built by current and previous generations.[6]

Reading has cognitive consequences that extend beyond the immediate task of understanding particular texts.[7] Studies have shown that avid readers—regardless of general ability—tend to know more than those who read little. Further, those who know more are likely to learn more, and to do so faster; in other words, knowledge begets more knowledge.[8] This is a stunning finding because it means that children who get off to a fast start in reading are more likely to read more over the years—and this very act of reading develops vocabulary, general knowledge, and information capital. Consequently, children's earliest experiences with print will establish a trajectory of learning that is reciprocal and exponential in nature—spiraling either upward or downward, carrying profound implications for the development of information capital.

Throughout our work, we have seen how the spatial distribution of poverty and privilege influences students' educational opportunities and, ultimately, their aspirations. Affluent people increasingly live, interact, and are educated with other affluent people, while the poor increasingly live, interact, and are educated with other poor people. This new political geography divorces the interests of the rich from the welfare of the poor, creating a more polarized and rigid society. The solution is to break down these barriers, and we'd like to start not by leveling the playing field, but by tipping it toward the underdogs. □

Endnotes

1. Lee Ross, "The Intuitive Psychologist and His Shortcomings: Distortions in the Attribution Process," *Advances in Experimental Social Psychology* 10 (1977): 173–220.

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7. Keith E. Stanovich, "Matthew Effects in Reading: Some Consequences of Individual Differences in the Acquisition of Literacy," *Reading Research Quarterly* 21 (1986): 360–407.

8. Daniel T. Willingham, "How Knowledge Helps: It Speeds and Strengthens Reading Comprehension, Learning—and Thinking," *American Educator* 30, no. 1 (Spring 2006): 30–37.