Urban Education
46(4) 639–662

DOI: 10.1177/0042085911399790
http://uex.sagepub.com
SAGE

Career Trajectories of Urban Teachers: A Continuum of Perspectives, Participation, and Plans Shaping Retention in the Educational System

Carol R. Rinke[1]

Abstract

This article addresses teacher retention in urban schools, focusing on high-need secondary science classrooms. As a longitudinal study, this research investigated how eight case study teachers conceived of their careers and career moves. The experiences and perspectives of three case study teachers indicated that they were situated along a continuum from those who aimed to *integrate* fully into the educational system to those who wanted to *participate* in it for a limited period of time. Teachers negotiated their perspectives with the workplace context to shape participation in school communities, relationships with students and colleagues, and career directions.

Keywords

teaching (occupation), teacher characteristics, teacher retention, urban education, science education

[1]Gettysburg College, Gettysburg, PA, USA

Corresponding Author:
Carol R. Rinke, Education Department, Box 396, Gettysburg College, 300 North Washington Street, Gettysburg, PA 17325, USA
Email: crinke@gettysburg.edu

Teacher attrition rates in the United States are high, with almost 40% of new teachers leaving the field within their first 5 years in the profession (Ingersoll, 2003). Although there is some debate as to whether the country as a whole faces a crisis in teacher retention (DeAngelis & Presley, 2007; Keller, 2007), there is clear evidence that urban high school science teachers are particularly susceptible to attrition. Forty urban school districts across the United States report science as their highest need subject area, with 97.5% of the districts citing an immediate demand for science teachers (Urban Teacher Collaborative, 2000). Moreover, science teachers are more likely to leave teaching than other subject-area educators because they face high opportunity costs for teaching and have a wide variety of attractive career alternatives (Murnane & Olsen, 1990; Murnane, Singer, Willett, Kemple, & Olsen, 1991; Theobald & Michael, 2002). Science and math teachers also show significantly higher rates of job dissatisfaction as compared with the rest of the teaching force (Ingersoll, 2003).

The research shows mixed results regarding retention in urban school districts and a few studies have found that teachers are more likely to leave schools with better or more privileged conditions (Heyns, 1988; Theobald, 1990), a phenomenon that may be attributed to a feeling of relative deprivation compared with the local community (Theobald, 1990). However, more recent studies indicate that because of high teacher demand and low teacher supply, poor urban school districts have higher rates of teacher attrition and deal with more pressing teacher shortages (Darling-Hammond, 2003; Darling-Hammond & Sclan, 1996; Haberman & Rickards, 1990; Imazeki, 2002; Shen, 1997), replacing up to one fifth of their entire faculty each year (Ingersoll, 2001). Furthermore, in one study, all teachers sampled who moved from one school to another transferred into a school serving a wealthier student population (Johnson, 2004). This often leaves poor, non-White, low-performing students with the least skilled teachers (Lankford, Loeb, & Wyckoff, 2002) and makes it difficult to staff urban, high school science classrooms with experienced and qualified teachers.

High attrition rates for urban science teachers pose a significant burden to schools and students for both financial and academic reasons. Financially, teacher turnover can cost school districts up to US$8,000 for each teacher who leaves the profession (Ingersoll, 2003) and an estimated 329 million to 2.9 billion dollars for just one U.S. state (Texas State Board for Educator Certification, 2000). Academically, ongoing teacher attrition can result in reduced educational quality for students. Teacher effectiveness grows over the first several years in the classroom. For elementary teachers, Murnane (1975) shows that effectiveness improves during the first 3 to 5 years in the

classroom, and Murnane and Phillips (1981) demonstrate that teacher experience has a significant positive effect on student outcomes during the first 7 years. At the high school level, Ferguson (1991) finds that teachers with 9 or more years of experience have higher student test scores than those with 5 to 9 years of experience. Thus, teacher turnover that results in a continually inexperienced teaching force can decrease student academic achievement. Grissmer, Flanagan, Kawata, and Williamson (2000) show that states with a higher proportion of experienced teachers scored higher on the National Assessment of Educational Progress (NAEP). Although some researchers suggest that stability in the workforce can lead to complacency (Macdonald, 1999), teacher retention is generally considered desirable, particularly during the first several years, because of its financial benefits and positive impact on student achievement.

This study addresses the issue of urban teacher retention from an orientation of teachers' perspectives on the profession. In an effort to attend to teachers' voices within the conversation about teacher retention (Cohn & Kottkamp, 1993), this project offers an in-depth and longitudinal examination of how case study teachers think about their professional lives and decisions. It explores the perspectives of three urban science teachers regarding their entry into the classroom, their experiences in schools, and their short-term and long-term career plans. The primary question guiding this work is how urban science teachers think about their careers and career moves.

Theoretical Framework and Literature Base

Traditional research on teacher retention investigates both individual and contextual factors related to staying, moving, or leaving (Rinke, 2008). However, researchers in the field have called for greater attention to teachers' perspectives and increased use of qualitative methods for understanding attrition (Billingsley, 1993; Bloland & Selby, 1980). In response, this study is grounded in the perspective that biography and lived experiences are central to teaching (e.g., Carter & Doyle, 1996; Clandinin, 1986; Goodson & Hargreaves, 1996). Earlier work has indicated that biography is vital in shaping teacher education and professional development, classroom practice, and professional relationships (Britzman, 1986; Cole & Knowles, 1993; Costigan, 2005; Feiman-Nemser & Buchmann, 1985; Kelchtermans, 1993). This study builds on these theoretical underpinnings, applying them to the issue of teacher retention in urban schools.

Much of the research conducted from a biographical perspective uses a lens of either life history (e.g., Atkinson, 1998; Goodson, 1991) or narrative

inquiry (e.g., Carter & Doyle, 1996; Clandinin & Connelly, 1995). This study aims to build on key elements of these previous approaches, including a life story interview and images of practice, relationships, and professionalism. This research incorporates these central biographical elements into a comprehensive case study approach taking into account and triangulating a range of data sources including ongoing interviews, professional observations at the school site, and artifact analysis (Stake, 1995; Yin, 2003). This methodology expands the traditional biographical perspective to incorporate issues relevant to teacher retention, including past experiences; current interactions with workplace, students, and colleagues; and future plans.

In addition to a solid grounding in a biographical framework, this research is also situated within two bodies of literature: what teachers want out of a teaching career and how teachers participate in school communities.

What Do Teachers Want Out of a Teaching Career?

Prior research has found that both new and veteran teachers prioritize professional growth, students, and support as key factors for their professional lives. Studies with experienced teachers in urban schools and nationwide have indicated that continual learning and intellectual growth are central to teaching (Cohen, 1991; Nieto, 2001). There is also a growing consensus that beginning teachers, particularly in urban settings, take on a variety of education-related roles outside of the classroom (Donaldson et al., 2008; Olsen & Anderson, 2007; Quartz et al., 2008). These roles must be both regenerative and generative, providing opportunities to learn and grow while sharing expertise with others, to enhance retention in the profession (Margolis, 2008). Ongoing opportunities for professional growth and development appear to be central to what teachers want out of their career.

Teachers also value their ability to make a difference for students. African American urban veterans identified student achievement as one of their primary sources of professional satisfaction, whereas high school veterans pointed to the importance of teaching to society (Brunetti, 2001; Stanford, 2001). High-achieving preservice teachers prioritized the social usefulness of teaching and their interest in generating social change for their students (Smulyan, 2004; Weiner, 1990). In addition, alternative-route teachers identified altruism as one of their central reasons for entering the profession (Stotko, Ingram, & Beaty-O'Ferrall, 2007). Teachers from a variety of backgrounds look to teaching as a way to develop themselves and others.

Finally, teachers want to work in a context that is supportive of their professional aims. Recent research has indicated that urban science teachers are most

likely to persist in school contexts with coherent and common goals (Moscovici, 2009). Similarly, beginning teachers appear to seek out school contexts in which they can best pursue a sense of success and where they perceive themselves to be effective as educators (Johnson & Birkeland, 2003; Yee, 1990). Teachers' visions for classroom practice are also central, pointing them to contexts where that pedagogical vision can best be enacted (Hammerness, 2006). Together, professional growth, students, and support form a scaffold on which teachers can build their careers.

How Do Teachers Participate in School Communities?

School-based participation has been investigated using both theoretical and empirical approaches. Sociocultural theory suggests that newcomers to a community of practice gain membership through developing competence in the norms of the community (Wenger, 1998). A second, more empirical approach to communities explores the notion of professional learning communities, their development, influence on classroom practice, role in shaping professionalism, and even conflict (Achinstein, 2002; Grossman, Wineburg, & Woolworth, 2001; Little, 2003; Talbert & McLaughlin, 1996). Westheimer's (1998) work on school communities broadens these definitions even further, incorporating both formal professional learning communities and well-structured communities of practice as well as loose associations among teachers that emphasize individuality. The communities observed in this study tended toward loose associations and research suggests that even these casual networks may be consequential for retention in the field. Thomas (2005), working as part of a longitudinal research project of urban educators, used social network analysis to map teachers' interactions around career decisions. He found that teachers who stayed tended to have school-focused social networks, whereas teachers who shifted into nonclassroom roles tended to have more diverse networks including other education professionals and more high-status individuals. Thus, initial research suggests that participation in even informal school communities may be consequential for career moves.

Grounded in a framework placing biography at the center of teaching and influenced by research pointing to the importance of professional growth, student outcomes, support, and participation in professional communities, this study investigates the perspectives, experiences, and career moves of case study science teachers in one urban district. This study addressed the overarching research question, "How do urban science teachers think about their careers and career moves?" by focusing on three specific subquestions:

1. How do teachers develop and enact their perspectives on teaching?
2. In what ways do teachers participate in professional communities?
3. In what ways are teachers' professional perspectives and communities consequential for their career moves?

Method

This study was situated in the William City Public Schools,[1] an urban school district on the Eastern seaboard enrolling approximately 90,000 students annually, making it one of the 30 largest school districts in the United States (National Center for Education Statistics, 2001). Of those students, 88% are Black and 81% receive free and reduced meals (FARMS). William City reports low achievement academically and faces many of the personnel challenges that other districts report nationally, with numerous teaching vacancies, high costs associated with teacher turnover, and heavy use of local and national alternative certification routes in the hiring of new teachers (Urban Teacher Collaborative, 2000).

This study of teacher retention in the William City Public Schools used a primarily qualitative case study methodology, selected for its ability to look at diverse aspects of the experiences of individual teachers (Merriam, 1998). The study began with the administration of a survey to all 1st-, 2nd-, and 3rd-year high school science teachers intended to select case study participants and situate those teachers within the larger school district. Forty out of 73 targeted teachers returned surveys, a 54.8% response rate. Not surprisingly, it was found that the majority of target teachers in this predominately Black school district were female, White, and below 30 (Banks, 1995; Gay & Howard, 2000).

From this pool of teachers, eight individuals were selected as case study teachers based on a range of demographic, certification, and school context variables shown to be important in the teacher retention literature. Specifically, Bobbitt, Faupel, and Burns (1991), in an analysis of the Teacher Follow-up Survey, found differences in teacher retention rates based on gender, age, race, years of experience, school size, and subject matter. LaTurner (2002) expanded this analysis through an examination of routes into teaching based on the Baccalaureate and Beyond study. He found higher levels of career commitment among those with stronger initial qualifications. Finally, Weiss (1999), analyzing data from the Schools and Staffing Survey, found perceived workplace conditions, including school climate, linked to planned retention. These and other related studies (e.g., Dworkin, 1980; Heyns, 1988; Rosenholtz, 1989) suggest the importance of selecting participants based on

Table 1. Overview of Case Study Teachers

	Gender	Experience	Age	Race	Certification type[a]	Subject	School culture[b]
Alison	Female	3rd year	25-30	White	Traditional	Chemistry	Strong
Raya	Female	3rd year	40-45	White	Alternative	Environmental science	Weak
Talisha	Female	1st year	30-35	African American	None	Chemistry/Biology	Moderate

a. Traditional certification is defined as a 4- or 5-year university-based program. Alternative certification is defined as a primarily nonuniversity-based program which may partner with a university to fulfill some instructional needs.
b. School culture was determined based on responses to the questions in the school climate section of the survey. Weak school culture is defined as an average response of less than 3.0, moderate as between 3.0 and 3.5, and a strong culture is defined as greater than 3.5 on a Likert-type scale of 1 through 5.

gender, teaching experience, age, race, certification route, subject area, and school culture. Three representative case studies are presented in this article (see Table 1).

Monthly interviews and professional observations were conducted from January to December 2006, across two academic years to track case study teachers' career moves over time. Nine to 10 interviews were conducted with each teacher for a total of 76 interviews, each lasting 1 to 1.5 hr. Semistructured interviews, which were audiotaped and transcribed, addressed a progression of topics, starting with family and professional background and proceeding through daily life at the school, ideas about teaching, sources of support, relationships with students, colleagues and administration, community participation, and short- and long-term career plans. Each interview also allowed time for conversation around ongoing rewards and frustrations. In addition to the interviews, this study also incorporated 57 professional observations which captured the context of teaching and case study teachers' interactions in various professional communities. These professional observations took place during classroom teaching, faculty meetings, professional development sessions, university classes, student presentations, and social events, and artifacts were collected whenever available.

Data analysis was an iterative process both during and following data collection, with ongoing analysis guiding future data collection (Bogdan & Biklen, 2003). Interview transcripts and observational field notes were coded based on the initial conceptual framework using NVivo qualitative data analysis software. Coding categories included professional perspectives; practices; student, colleague, and administrative relationships; community

participation; classroom practice; and career plans. Individual cases were developed from the coded data and distributed to participants for member checking (Merriam, 1998). These within-case analyses cases were then used to construct a series of matrices, 13 in all, in an effort to reduce, describe, and order variables such as recruitment, retention, perspectives, and participation (Miles & Huberman, 1994). Analysis of the data then led to the development of a continuum from *integration* to *participation* which linked teachers' priorities, community participation, and career moves.

A Continuum of Perspectives, Participation, and Plans

Case study teachers' perspectives appeared to vary along a continuum from within the educational system to outside of it. On one side of the continuum were individuals who entered teaching with the goal of long-term *integration* into the educational system, envisioning work as a classroom teacher followed by roles in educational leadership such as mentoring or administration. The teachers who were situated on this end of the continuum felt that education within the K-12 system was their ultimate occupation. On the other side of the continuum were individuals who entered teaching with a goal of short-term *participation* in the educational system, intending to work in the classroom for a limited period of time before leaving to pursue other professional endeavors. Rather than aiming to become part of the educational system, these individuals hoped to make an impact during their brief tenure and then continue their contribution through a venue outside of the system. Whereas some teachers lay squarely on each end of the continuum, Alison, a clear integrator, Talisha, a clear participant, and others like Raya resided somewhere in the murky center, embodying certain characteristics of integrators and others of participants. This continuum of professional perspectives appeared to serve as a filter for each case study teacher's entry into the classroom, experience in schools, and short- and long-term career plans.

Integration

Those case study teachers on the integration end of the continuum aimed, in various ways, to integrate into educational system. They grew up with a respect for teachers and wanted to become part of the educational system. They worked to become involved in schoolwide initiatives and build strong personal relationships with students and colleagues. In addition, they planned to grow intellectually and professionally via opportunities available to them within the educational system. To provide a rich description of the perspectives

and experiences of individuals, each section will present one case study teacher who exemplifies the characteristics of this portion of the continuum. This section describes Alison, who was in her 3rd year of teaching chemistry at the initiation of the study.

Alison grew up in a middle-class household in predominantly White small-town Pennsylvania, her father an economic developer and her mother an editor. Alison described her early educational experiences with great enthusiasm, explaining "I loved school" (Personal interview, February 28, 2006). She was involved in her high school's community service organization and environmental club, sang in the chorus, and was an enthusiastic spectator at the sporting events. Moreover, Alison had inspiring experiences with science during high school. She described a strong relationship with her biology teacher and explained that she took all of the science courses offered at her school and planned to pursue a science-related occupation. She earned a chemistry degree in college and always kept the idea of teaching in the back of her mind, explaining "I felt like I might want to teach. Oh, that'd be fun to teach, or when I'm a teacher, type of things in my head" (Personal interview, February 28, 2006).

After graduating, Alison decided to spend a 5th year earning a traditional university-based teaching certificate and student teaching. During this program, Alison formed a close relationship with one of her instructors who had previously worked in urban schools. After taking the course, Alison decided that she, too, wanted to work in an urban environment, explaining, "After working with her, I knew that's what I wanted to do. I wanted to have a bigger impact, and I feel like I can have a bigger impact [with] urban kids" (Personal interview, February 28, 2006). At the conclusion of the program, Alison applied for teaching positions in a variety of school districts but ultimately accepted the offer in William City because they could guarantee her a job in April, as opposed to the more typical July. Shortly after starting her job, Alison bought an older home in the city and began renovating it bit by bit, illustrating her commitment to the community and her teaching position.

Alison worked in a newly created small high school where she was committed to the overall success of the school. Alison was integral to its day-to-day functioning, leading professional development sessions from 7:30 to 8:30 each morning before the official school day began. In this role, she designed an advisory curriculum and crafted a consistent schoolwide discipline policy. Alison also sat on several committees, including the School Improvement Committee, the Student Support Team, and the Instructional Leadership Council, in addition to serving initially as an informal and later as the official content leader for science. Alison was also a general go-to person

for her principal, willing to assist with projects as needed. For example, despite the fact that she was not a school counselor, Alison was asked to help prepare for an audit of guidance folders, a large-scale reorganization of school records for hundreds of students to meet current state requirements. Alison spent numerous planning periods, weekends, and even some of her spring break working on this project. She received a small stipend but commented that although the money helped, she put in the time to support her school. Alison said, "I don't mind doing it . . . It needs to get done and I don't like it when our school fails things" (Personal interview, April 18, 2006). Given her tremendous efforts on behalf of the school, it is not surprising that Alison received the award for "Best Team Player."

She worked to build strong relationships with students, families, colleagues, and administrators. Alison's classroom was filled with glamorous photographs of students and they poured in to chat with her between classes. One student even offered to sweep the floor just so that she could spend time in Alison's room. When asked about the most important aspect of her job, Alison replied, "Talk to the kids on a little bit different level, about something that's happening at home or who they're living with now. Try and relate to my kids" (Personal interview, May 16, 2006). She knew the names of most of the students schoolwide and offered her cellphone number to parents in an effort to support her students' academic work. Alison was also close with colleagues, and one English teacher in particular, with whom she collaborated on schoolwide efforts such as the discipline plan and guidance folder audit, working together on the weekends and over the summer on school-related projects. Finally, she respected her school principal, who she considered a mentor and a source of support, explaining, "I feel like most of the time, any time I have a problem, Dr. Johnson supports me" (Personal interview, June 6, 2008). Alison respected her principal because Dr. Johnson gave Alison the autonomy to become involved in the school, explaining, "She's willing to take suggestions and she's willing to think about things because she knows that she doesn't know all the answers" (Personal interview, May 16, 2006).

Despite substantial and ongoing upheaval in her school context, Alison remained committed to a career within the educational system. After her 1st year of teaching, the district closed her comprehensive high school and created several smaller learning communities. After her 3rd year, they sold the school building, moving them to a nearby location which was not ready when they arrived in August, lacked a cafeteria, and used portable classrooms. Moreover, her school faced considerable teacher turnover each year repeatedly, leaving Alison with a brand-new science department to support. Despite

her often-chaotic work context, Alison remained positive about teaching, noting, "I think it's gonna be good. I think everything's gonna get better" (Personal interview, September 6, 2006). This perspective shaped her career decisions, helping her to see the changes as incremental steps toward improvement. At the conclusion of the project, Alison was finding her way in her new role as science support teacher. She planned to pursue a master's in science education and stay on within the educational system in either a teaching or mentorship capacity. Alison expected to remain in her current position through her 5th year, then reassess the urban context. If she did leave, she would stay within the educational system but move to a more well-resourced and well-organized district.

Integration/Participation

There were also individuals in the center of the continuum who not only shared goals with integrators but also possessed certain qualities of participants, and vice versa. This section presents an in-depth look at Raya, a 3rd-year environmental science teacher and career changer who integrated into her school through schoolwide projects but kept herself separate from collegial relationships. As of this writing, Raya has completed 7 years in the classroom but sees teaching as a temporary occupation.

Raya grew up in a military family, moving every 2 years to bases around the United States and abroad. She always attended public schools and, at times, she and her siblings were the only White students in predominantly African American rural schools. She spent her high school years in a very large suburban high school outside Los Angeles, California. Raya was active in sports, sang in the chorus, took honors courses, and graduated at the top of her class. Despite these positive educational experiences, she never planned to become a teacher, commenting, "I was never interested in becoming a teacher because they were really boring people. They weren't very interesting to me" (Personal interview, January 30, 2006). Raya studied marine biology in college and earned a master's degree in science writing. Her varied two-decade career included being a member of the Merchant Marine, journalist, communications director, television science producer, and developer of interactive media.

As part of her work in interactive media for a prominent television station, Raya enrolled in courses on instructional technology and began developing an interest in teaching. She lived in William City and started exploring the city schools, sitting in on classes and reading books on urban education. Based on these experiences, Raya decided in her mid-40s to make a career

move into teaching. She explained that she had a full and satisfying career and now was the time to give back. Raya described teaching as her Peace Corps, explaining, "This was my Peace Corps duty that I was going to spend a few years doing this inner city teaching" (Personal interview, December 11, 2006). Raya took a 50% pay cut, enrolled in a local alternative certification program, and started teaching at a brand-new restructured high school in William City.

Once in the classroom, Raya aimed to develop authentic and meaningful educational experiences for her students. Toward this end, she initiated a schoolwide effort to adopt an expeditionary learning (EL) approach to instruction. She explained,

> I had been reading about what worked for inner city students and one of the models was the expeditionary learning model. And so I did quite a bit of homework because I was really interested in this because I come from an EL model in my life. So I was drawn to that. I thought, I want to teach this way. I basically lobbied and advocated for EL. (Personal interview, January 9, 2006)

Raya dedicated tremendous time and energy to the development of expeditions for her classes, thematic units that organize instruction. She conducted approximately three expeditions over the course of the school year, each one involving an elaborate combination of short-term and long-term scientific investigations, writing assignments, scientific and mathematical skills, and real-world applications, all organized around an authentic question. In addition to curriculum development, Raya was also heavily involved in schoolwide improvement efforts, sitting on the Leadership Team and the School Improvement Team and organizing weekly team and department meetings. She facilitated team-building experiences for the staff, schoolwide field trips for students, and EL professional development. She was also active outside of the school context, sitting on the board of an environmental organization and collaborating with local nonprofits. Despite her active participation, Raya maintained that she was involved only to support others and her real interest lay in the classroom. She commented, "I've already been the leader in different organizations. I'm really interested in the trench work and working with the students" (Personal interview, February 27, 2006).

Despite Raya's active involvement in schoolwide initiatives, she conspicuously maintained distance in her professional relationships. With students, she explained that her intention was not to "save the world" (Personal interview, March 27, 2006) but rather help students build particular life-readiness skills.

Raya felt very strongly that what her students needed was exposure to a professional school environment where they learned to put their personal problems aside. She explained,

> Part of it is the kids have to learn not to live in drama culture. You can't be in drama all the time, you will not make it through school, you won't make it through college, and you certainly won't make it through work if you are not in control of understanding how to deal with these situations. You can't always control the situations, but you can control how you respond to them. And you've got to learn some coping skills that help sort of modulate your behavior. (Personal interview, May 22, 2006)

She took a similar approach with colleagues. She made it clear that she had no intention of serving as a mentor for other teachers, particularly the "junior staff" (Field notes, February 22, 2006):

> New teachers are very stressful. They have lots and lots of questions, everything from classroom management to equipment to how things work. And then just wanting to talk. This is the most stressful, and I don't let it happen very much. I can't handle it on top of everything I do because we work in such a stressful environment with such demanding students. You know things happen all the time, and then the teachers have to process it. You know I'm normally supportive, but I don't allow that at school because I can't pick that up on top of some of my own work. It's just too much. I've got my own kids that I'm dealing with. (Personal interview, January 9, 2006)

About the more senior staff at her school, Raya reflected, "I just don't like very many of my colleagues. I don't consider them very professional, and it's not very fun working with them" (Personal interview, May 22, 2006). Like her students and colleagues, Raya also maintained distance from her school principal. Initially she described their relationship as tense because "she's very threatened by me" (Personal interview, January 9, 2006) but explained that it got better once the principal realized that Raya was not after her job.

Raya occupies the middle ground on the integration–participation continuum, using the structure of the educational system when it furthered her aims for students, but maintaining a sense of independence from it as well. Not surprisingly, Raya also represents a midpoint with respect to her career path. Raya believes that teachers need a couple years of experience before they are able to give back in the classroom, and it frustrated her to see

colleagues leaving after only 1 or 2 years. She intends to stay longer—but not forever. She was adamant about wanting to remain in the classroom rather than moving into administration and also rejected any notion of leaving urban schools for more well-resourced environments, maintaining that urban classrooms were where she could best make her contribution. At the conclusion of the study, Raya planned to teach for a while longer and then move out of the educational system into some form of educational consulting.

Participation

Located at the other end of the continuum are those teachers who came to teaching with the idea that they would *participate* for a while and then move on to make their contribution outside of the educational system. These teachers seemed to resist participation in schoolwide projects and preferred to work independently as opposed to collaboratively. Ultimately they saw themselves making a contribution to school and students from a venue separate from the educational system. This section presents the case of Talisha, a mother of two who spent 10 years in the pharmaceutical industry before entering the classroom.

Talisha grew up in a racially mixed neighborhood in what she describes as the "good part of the Bronx" (Personal interview, January 6, 2006) in New York City. Her mother worked at a daycare center and her father served as a police officer. Talisha was close with one aunt, the only college graduate on her mothers' side of the family, and aspired to be a nurse because she knew women became nurses. However, her father pushed her to become not a nurse but a doctor because they earned more money and respect. When the time came to select a high school, her father encouraged her to attend a biomedical research track at a neighboring high school. Talisha received tremendous support in this program, which she called a "microcosm" within the larger school system (Personal interview, January 6, 2006). She spent her summers at a boarding school in New England doing college-level academics and received tutoring to increase her scores on college entrance exams. She ultimately enrolled at a small northeastern liberal arts college, where she studied biology and African studies.

Although Talisha dreamed of attending medical school, she wanted a back-up plan and enrolled in the combined program to earn both a bachelor's and a master's degree. In this program, she became involved in cutting-edge genetics research. After graduation, Talisha was in the process of studying for the Medical College Admissions Test (MCAT) when she became pregnant

with her son and decided to forgo medical school and instead enter pharmaceutical research, which she perceived as a more family-friendly career. Talisha followed that career path for several years, in a variety of positions, but ultimately became unhappy with the direction of her job because she started spending more time behind the computer and less time in the lab. She was almost 30, hoping to have a second child, and ready for a career change. Her husband, a math teacher, had a connection to the William City Pride School, a small reform-oriented academy, and Talisha came to visit. She perceived this school to be a supportive microcosm within the larger system, like her high school's biomedical research track, and accepted the position without any formal teacher preparation. Talisha believed this job would allow her to help students develop science skills while still providing time for her to spend with her family.

Given her background in biomedical research, Talisha aimed to help her students gain hands-on experience in laboratory settings. In September, she immediately requested, and was promised, a fully stocked laboratory space in an adjacent classroom. This project was delayed again and again, ultimately completed in March, and lost by June with the relocation of the school. Talisha was also frustrated by the lack of textbooks and the changing nature of her teaching assignment. In response to these challenges in the workplace context, Talisha resolved, "You know, I'm not going to push for anything else. I'll work with what I have" (Personal interview, June 1, 2006). In contrast to Alison's school improvement efforts or Raya's introduction of a comprehensive curriculum approach, Talisha responded to challenges in her school context by remaining positive and choosing to "take it day by day" (Personal interview, June 14, 2006). While she became involved in a curriculum pilot as well as a hands-on science collaboration, she also began to focus less on her work and more on her personal life, concentrating on her new baby at home and an upcoming anniversary celebration. She remained devoted to developing a laboratory-based chemistry curriculum but actively resisted participation in any schoolwide activities.

Just as Talisha avoided engagement at the school level, she also liked to keep to herself professionally. She developed respectful relationships with students but did not see herself as a personal support for them. She explained,

> Students who drop in don't really get into personal stuff. I don't think I'm the teacher for that. And I'm glad of it that, they still respect that line. Don't come in and chat with me about relationships and so forth. There are other teachers here who they feel comfortable with, but I'm

> not the teacher to gossip with. I'm not one to really make small chit chat or put down other teachers. (Personal interview, June 1, 2006)

Talisha explained that students liked her because she was always respectful and never raised her voice, but she maintained a distance between student and teacher that reflected what she considered to be the professional, rather than personal, nature of their relationship. She also kept herself somewhat distant from colleagues, spending her lunch break entering grades into the computer. Although many new and more experienced colleagues came to her because she "put sunshine on things" (Personal interview, June 1, 2006), she chose not to turn to them with her concerns, saying, "I use my own supports" (Personal interview, June 1, 2006). She also noticeably avoided all contact with her school principal.

Talisha never intended to stay in the classroom long term, but she did not have any immediate plans to leave. In fact, she could not quite understand some of her fellow beginning teachers who talked of leaving so quickly. She commented, "I think about the other teachers I know who are in their first year and ready to quit. Being through challenges makes you stronger" (Personal interview, April 5, 2005). She tried to keep workplace problems in perspectives, noting, "There are so many other things in life that are so much more important" (Personal interview, June 14, 2006). However, she did not feel that she would last long as a classroom teacher, commenting, "I feel like I'm in a burn out career. I'm in it for now, but where do I want to be or what do I hope to get from it before I burn out?" (Personal interview, June 14, 2006). She talked of staying in teaching until she could receive the district's financial benefits, such as the home-buying program and loan repayment. Talisha explained, "I told my husband, 'You know, if for nothing else, I'm going to stick out teaching for at least three years to do the Teacher Next Door program. If I could stick it out for five, I will, to get my student loans paid off'" (Personal interview, June 14, 2006). Her plans changed, however, when she met the director of a mobile educational lab while participating in a summer workshop. Talisha was offered a job providing more money and allowing her to pursue her goal of exposing students to laboratory research. Plus, she explained, "In six years I'll be 40, and I don't want to be a teacher when I'm 40. I don't want to say that I'm a teacher when I turn 40" (Personal interview, September 8, 2006). Just a short time before school reopened in the fall, Talisha accepted this new position, leaving teaching after only 1 year.

Discussion

This study set out to understand how case study urban teachers think about their careers and career moves. The data indicated that these teachers were situated along a continuum from integration to participation in the educational system. These perspectives, based on their personal biography and grounded in ideas about teachers and education, were manifest not only in their entry into the classroom but also in their experiences in schools and relationships with students, colleagues, and administrators. Perhaps, most importantly, these initial perspectives were also linked to both short-term and long-term career directions. These professional perspectives, from integration to participation, operated as a type of personal filter on which the career context was interpreted. The theoretical underpinnings of this study identify life history and lived experiences as powerful filters for the development of pedagogy and practice (e.g., Carter & Doyle, 1996; Clandinin, 1986; Cole & Knowles, 1993; Goodson, 1991). The findings from this study expand this theoretical base to incorporate the notion of career direction as well.

Previous research on teacher retention has focused on individual and contextual factors associated with staying or leaving (Author, 2008). This study suggests that individual and contextual factors do not operate in isolation. Rather, they are filtered through an individual's perspective on teachers and teaching to shape a unique career direction. Like all teachers, Alison, Raya, and Talisha wanted to grow professionally and help students while working within a supportive environment (e.g., Johnson & Birkeland, 2003; Margolis, 2008; Weiner, 1990). However, their interpretations of the best means to reach those ends were mediated by their biographies and perspectives on the educational system. Alison saw herself as well-grounded within the educational system and aimed to help students through improvement of that system. When she considered her own professional growth, she turned to opportunities such as mentoring within an urban or a suburban district. In contrast, Raya saw herself as independent from the educational system but working within it to help students have authentic scientific experiences. She envisioned herself as an urban classroom teacher for several years, but when discussing professional development, she resisted growing within that system. In addition, Talisha felt disconnected from the educational system, seeing it as an impediment rather than a support for her goal of exposing students to hands-on laboratory research. She quickly moved outside of the educational system to an instructional-support organization where she felt she could better achieve her goals and grow as a professional. This study suggests that factors related to

retention continually intersect with the biographies and perspectives of individual teachers to shape their career trajectories.

Likewise, case study teachers negotiated their professional perspectives with their workplace context to construct a set of experiences and relationships reflective of their ideas about the profession. Prior research has illustrated that both professional learning communities and loose associations of colleagues can be consequential for teacher development and retention (e.g., Grossman et al., 2001; Thomas, 2005; Westheimer, 1998). This study indicates that teachers' participation in these communities is also mediated by their biography and perspectives on the profession. Given related workplace contexts with substantial administrative chaos, high-need students, and inexperienced colleagues, Alison, Raya, and Talisha made different interpretations leading to distinct forms of participation within school contexts and communities. Alison embraced ongoing changes as opportunities, taking on an active leadership role in improving her school. She also looked to her students and colleagues as sources of collective support, a mutual give and take in which personal relationships strengthened professional participation for all. Raya, however, interpreted the disorganization of her workplace context as a necessary evil, one in which she could indirectly participate through the introduction and adoption of the EL approach. She worked toward the development of professional relationships with students and colleagues but actively resisted personal ones as burdensome. In addition, Talisha interpreted a lack of resources and supportive structure as a failure of the educational system, retreating away from it and disengaging with students and colleagues. These data suggest that professional communities and workplace contexts cannot be understood alone. Instead, they must be considered from the perspective of the individuals who interact with them on a daily basis.

This study is certainly not the first to identify career trajectories for teachers. Weiner (1993) presented a related notion in which some urban teachers view teaching as a job, whereas others see it as a calling. Similarly, Johnson (2004) proposed exploring and contributing as contrasting orientations for this current generation of teachers, suggesting that these may be related to either short-term or long-term career directions (Peske, Liu, Johnson, Kauffman, & Kardos, 2001). This continuum builds on earlier concepts by incorporating the notion that all of these urban teachers hoped to make a contribution to high-need schools and students. The difference resided in teachers' interpretations of the best way to achieve that goal, with some planning to work through the educational system and others outside of it. At its core, this continuum represents a deep divide over how much to trust the educational system in general, and the urban educational system in particular.

Those teachers on the integration end of the continuum maintain a belief that the system may be troubled but holds the best promise for self-improvement. However, those on the participation end have low confidence in the urban educational system, believing that work outside of it is better suited to supporting students and achieving personal and professional goals.

These findings suggest practical implications for the recruitment and retention of teachers, particularly in high-need urban districts. The underlying importance of biography and lived experience, and, in particular, the ways in which these perspectives determine confidence in the educational system, should be central to developing teachers for urban science classrooms. Recruitment efforts might examine prior educational experiences and scrutinize prospective teachers' planned approaches to not only instruction but also community participation and professional growth. Teacher education, mentoring, and induction programs might emphasize reflection on, and dialogue about, the educational system in an effort to understand and perhaps even alter underlying ideas. In addition, school districts might consider increasing opportunities for teachers to simultaneously work toward both school and professional improvement, strengthening the educational system while cementing teachers' relationship with it.

This study is limited in both size and scope, necessitating future research that extends these propositions beyond a small sample of urban science teachers to a broader set of subject areas, grade levels, and school contexts. In addition, the notion of biography as central to teachers' careers should be explored past this set of beginning teachers in high-need urban classrooms. Investigations might consider the ways in which biography interacts at points across the professional lifespan and in a diversity of educational contexts. Finally, this study considers the influence of perspectives on teaching with community participation, school relationships, and career moves. It might also be expanded to include classroom practice or even student development and academic outcomes. In its current form, this study expands the theoretical base to incorporate the central role of biography in career direction and identifies a continuum of perspectives, participation, and plans which shape retention.

Declaration of Conflicting Interests

The author(s) declared no potential conflicts of interest with respect to the authorship and/or publication of this article.

Funding

The author(s) received no financial support for the research and/or authorship of this article.

Note

1. All names are pseudonyms.

References

Achinstein, B. (2002). Conflict amid community: The micropolitics of teacher collaboration. *Teachers College Record, 104*, 421-455.

Atkinson, R. (1998). *The life story interview*. Thousand Oaks, CA: SAGE.

Banks, J. A. (1995). Multicultural education: Historical development, dimensions, and practice. In J. A. Banks & C. A. M. Banks (Eds.), *Handbook of research on multicultural education* (pp. 3-24). Old Tappan, NJ: Macmillan.

Billingsley, B. S. (1993). Teacher retention and attrition in special and general education: A critical review of the literature. *Journal of Special Education, 27*, 137-174.

Bloland, P. A., & Selby, T. J. (1980). Factors associated with career change among secondary school teachers: A review of the literature. *Educational Research Quarterly, 5*(3), 13-24.

Bobbitt, S. A., Faupel, E., & Burns, S. (1991). *Characteristics of stayers, movers, and leavers: Results from the teacher follow-up survey, 1988-89*. Washington, DC: Office of Educational Research and Improvement.

Bogdan, R. C., & Biklen, S. K. (2003). *Qualitative research for education: An introduction to theories and methods* (4th ed.). Boston, MA: Allyn and Bacon.

Britzman, D. P. (1986). Cultural myths in the making of a teacher: Biography and social structure in teacher education. *Harvard Educational Review, 56*, 442-456.

Brunetti, G. J. (2001). Why do they teach? A study of job satisfaction among long-term high school teachers. *Teacher Education Quarterly, 38*(1), 49-74.

Carter, K., & Doyle, W. (1996). Personal narrative and life history in learning to teach. In J. Sikula (Ed.), *Handbook of research on teacher education* (2nd ed., pp. 120-142). New York, NY: Macmillian Library Reference.

Clandinin, D. J. (1986). *Classroom practice: Teacher images in action*. Philadelphia, PA: Falmer.

Clandinin, D. J., & Connelly, F. M. (1995). *Teachers' professional knowledge landscapes*. New York, NY: Teachers College Press.

Cohen, R. M. (1991). *A lifetime of teaching: Portraits of five veteran high school teachers*. New York, NY: Teachers College Press.

Cohn, M. M., & Kottkamp, R. B. (1993). *Teachers: The missing voice in education*. Albany: State University of New York Press.

Cole, A. L., & Knowles, J. G. (1993). Shattered images: Understanding expectations and realities of field experiences. *Teaching and Teacher Education, 9*, 457-471.

Costigan, A. T. (2005). Choosing to stay, choosing to leave: New York City teaching fellows after two years. *Teacher Education Quarterly, 32*(2), 125-142.

Darling-Hammond, L. (2003). Keeping good teachers: Why it matters, what leaders can do. *Educational Leadership, 60*(8), 6-13.

Darling-Hammond, L., & Sclan, E. M. (1996). Who teaches and why? Dilemmas of building a profession for twenty-first century schools. In J. Sikula, T. J. Buttery, & E. Guyton (Eds.), *Handbook of research on teacher education* (2nd ed., pp. 67-101). New York, NY: Simon & Schuster Macmillan.

DeAngelis, K. J., & Presley, J. B. (2007). *Leaving schools or leaving the profession: Setting Illinois' record straight on new teacher attrition* (Policy Research Report: IERC 2007-1). Edwardsville: Illinois Education Research Council. Retrieved from http://ierc.siue.edu/documents/New_Teacher_Attrition_Study%202007-1.pdf

Donaldson, M. L., Johnson, S. M., Kirkpatrick, C. L., Marinell, W. H., Steele, J. L., & Szczesiul, S. A. (2008). Angling for access, bartering for change: How second-stage teachers experience differentiated roles in schools. *Teachers College Record, 110*, 1088-1114.

Dworkin, A. G. (1980). The changing demography of public schools teachers: Some implications for faculty turnover in urban areas. *Sociology of Education, 53*, 65-73.

Feiman-Nemser, S., & Buchmann, M. (1985). Pitfalls of experience in teacher preparation. *Teachers College Record, 87*(1), 53-65.

Ferguson, R. F. (1991). Paying for public education: New evidence on how and why money matters. *Harvard Journal of Legislation, 28*, 465-498.

Gay, G., & Howard, T. (2000). Multicultural teacher education for the 21st century. *Teacher Educator, 36*(1), 1-16.

Goodson, I. F. (1991). Teachers' lives and educational research. In I. F. Goodson & R. Walker (Eds.), *Biography, identity, and schooling: Episodes in education research* (pp. 137-149). Bristol, PA: Falmer.

Goodson, I. F., & Hargreaves, A. (1996). *Teachers' professional lives* (Vol. 3). London, UK: Falmer.

Grissmer, D. A., Flanagan, A., Kawata, J., & Williamson, S. (2000). *Improving student achievement: What state NAEP scores tell us*. Arlington, VA: RAND.

Grossman, P., Wineburg, S., & Woolworth, S. (2001). Toward a theory of teacher community. *Teachers College Record, 103*, 942-1012.

Haberman, M., & Rickards, W. H. (1990). Urban teachers who quit: Why they leave and what they do. *Urban Education, 25*, 297-303.

Hammerness, K. (2006). *Seeing through teachers' eyes: Professional ideals and classroom practices*. New York, NY: Teachers College Press.

Heyns, B. (1988). Educational defectors: A first look at teacher attrition in the NLS-72. *Educational Researcher, 17*(3), 24-32.

Imazeki, J. (2002). Teacher attrition and mobility in urban districts: Evidence from Wisconsin. In C. Roellke & J. K. Rice (Eds.), *Fiscal policy in urban education* (pp. 119-136). Greenwich, CT: Information Age.

Ingersoll, R. M. (2001). *Teacher turnover, teacher shortages, and the organization of schools*. Seattle, WA: Center for the Study of Teaching and Policy.

Ingersoll, R. M. (2003). Turnover and shortages among science and mathematics teachers in the United States. In J. Rhoton & P. Bowers (Eds.), *Science teacher retention: Mentoring and renewal,* pp. 1-12. Arlington, VA: National Science Education Leadership Association and National Science Teachers Association Press.

Johnson, S. M. (2004). *Finders and keepers: Helping new teachers survive and thrive in our schools*. San Francisco, CA: Jossey-Bass.

Johnson, S. M., & Birkeland, S. E. (2003). Pursing a "sense of success": New teachers explain their career decisions. *American Educational Research Journal, 40*, 581-617.

Kelchtermans, G. (1993). Getting the story, understanding the lives: From career stories to teachers' professional development. *Teaching and Teacher Education, 9*, 443-456.

Keller, B. (2007). Oft-cited statistic likely inaccurate. *Education Week, 26*(41), 30.

Lankford, H., Loeb, S., & Wyckoff, J. (2002). Teacher sorting and the plight of urban schools: A descriptive analysis. *Educational Evaluation and Policy Analysis, 24*(1), 37-62.

LaTurner, R. J. (2002). Teachers' academic preparation and commitment to teach math and science. *Teaching and Teacher Education, 18*, 653-663.

Little, J. W. (2003). Inside teacher community: Representations of classroom practice. *Teachers College Record, 105*, 913-944.

Macdonald, D. (1999). Teacher attrition: A review of the literature. *Teaching and Teacher Education, 15*, 835-848.

Margolis, J. (2008). What will keep today's teachers teaching? Looking for a hook as a new career cycle emerges. *Teachers College Record, 110*, 160-194.

Merriam, S. B. (1998). *Qualitative research and case study applications in education*. San Francisco, CA: Jossey-Bass.

Miles, M. B., & Huberman, M. (1994). *Qualitative data analysis: An expanded sourcebook*. Thousand Oaks, CA: SAGE.

Moscovici, H. (2009). Science teacher retention in today's urban schools: A study of success and failure. *Urban Education, 44*(1), 88-105.

Murnane, R. J. (1975). *The impact of school resources on the learning of inner-city children*. Cambridge, MA: Balinger.

Murnane, R. J., & Olsen, R. J. (1990). The effects of salaries and opportunity costs on length of stay in teaching—Evidence from North Carolina. *Journal of Human Resources, 25*(1), 106-124.

Murnane, R. J., & Phillips, B. R. (1981). What do effective teachers of inner-city children have in common? *Social Science Research, 10*, 83-100.

Murnane, R. J., Singer, J. D., Willett, J. B., Kemple, J. J., & Olsen, R. J. (1991). *Who will teach? Policies that matter*. Cambridge, MA: Harvard University Press.

National Center for Education Statistics. (2001). *Characteristics of the 100 largest elementary and secondary school districts in the United States: 2000-2001*. Washington, DC: Author.

Nieto, S. (2001). What keeps teachers going? And other thoughts on the future of public education. *Equity & Excellence in Education, 34*(1), 6-15.

Olsen, B., & Anderson, L. (2007). Courses of action: A report on urban teacher career development. *Urban Education, 42*(1), 5-29.

Peske, H. G., Liu, E., Johnson, S. M., Kauffman, D., & Kardos, S. M. (2001). The next generation of teachers: Changing conceptions of a career in teaching. *Phi Delta Kappan, 83*, 304-311.

Quartz, K. H., Thomas, A., Anderson, L., Masyn, K., Lyons, K. B., & Olsen, B. (2008). Careers in motion: A longitudinal retention study of role changing among early-career urban educators. *Teachers College Record, 110*, 218-250.

Rinke, C. R. (2008). Understanding teachers' careers: Linking professional life to professional path. *Educational Research Review, 3*(1), 1-13.

Rosenholtz, S. J. (1989). *Teachers' workplaces: The social organization of schools*. New York, NY: Longman.

Shen, J. (1997). Teacher retention and attrition in public schools: Evidence from SASS91. *Journal of Educational Research, 91*(2), 81-88.

Smulyan, L. (2004). Choosing to teach: Reflections on gender and social change. *Teachers College Record, 106*, 513-543.

Stake, R. E. (1995). *The art of case study research*. Thousand Oaks, CA: SAGE.

Stanford, B. H. (2001). Reflections of resilient, persevering urban teachers. *Teacher Education Quarterly, 28*(3), 75-87.

Stotko, E., Ingram, R., & Beaty-O'Ferrall, M. E. (2007). Promising strategies for attracting and retaining successful urban teachers. *Urban Education, 42*(1), 30-51.

Talbert, J. E., & McLaughlin, M. W. (1996). Teacher professionalism in local school contexts. In I. F. Goodson & A. Hargreaves (Eds.), *Teachers' professional lives* (pp. 127-153). Washington, DC: Falmer.

Texas State Board for Educator Certification. (2000). *The cost of teacher turnover*. Austin: Texas Center for Educational Research.

Theobald, N. D. (1990). An examination of the influence of personal, professional, and school district characteristics on public school teacher retention. *Economics of Education Review, 9*, 241-250.

Theobald, N. D., & Michael, R. S. (2002). Reducing novice teacher attrition in urban districts: Focusing on the moving target. In C. Roellke & J. K. Rice (Eds.), *Fiscal policy in urban education* (pp. 137-152). Greenwich, CT: Information Age.

Thomas, A. (2005). *Building to last? The structure and composition of urban educators' career decision networks.* Paper presented at the annual meeting of the American Educational Research Association, Montreal, Québec, Canada.

Urban Teacher Collaborative. (2000). *The urban teacher challenge*. Washington, DC: Recruiting New Teachers.

Weiner, L. (1990). Preparing the brightest for urban schools. *Urban Education, 25*, 258-273.

Weiner, L. (1993). *Preparing teachers for urban schools: Lessons from thirty years of school reform*. New York, NY: Teachers College Press.

Weiss, E. M. (1999). Perceived workplace conditions and first-year teachers' morale, career choice commitment, and planned retention: A secondary analysis. *Teaching and Teacher Education, 15*, 861-879.

Wenger, E. (1998). *Communities of practice: Learning, meaning, and identity*. New York, NY: Cambridge University Press.

Westheimer, J. (1998). *Among schoolteachers: Community, autonomy and ideology in teachers' work*. New York, NY: Teachers College Press.

Yee, S. M.-L. (1990). *Careers in the classroom: When teaching is more than a job*. New York, NY: Teachers College Press.

Yin, R. (2003). *Case study research: Design and methods* (3rd ed.). Thousand Oaks, CA: SAGE.

Bio

Carol R. Rinke, a former urban science teacher, is currently an assistant professor of science and mathematics education at Gettysburg College.