

Information Grounds and the Use of Need-Based Services by Immigrants in Queens, New York: A Context-Based, Outcome Evaluation Approach

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We elaborate on Pettigrew's (1998, 1999) theory of information grounds while using an outcome evaluation approach enriched by its focus on context to explore the use of need-based services by immigrants in New York City. Immigrants have substantial information and practical needs for help with adjusting to life in a new country. Because of differences in language, culture, and other factors such as access, new immigrants are a difficult population to study. As a result, little research has examined their predilections from an information behavior perspective. We report findings from a qualitative study of how literacy and coping skills programs are used by and benefit the immigrant customers of the Queens Borough Public Library (QBPL). From our interviews and observation of 45 program users, staff, and other stakeholders, we derived a grand context (in Pettigrew's terms) woven from three subcontexts: the immigrants of Queens, New York; the QBPL, its service model, and activities for immigrants; and professional contributions of QBPL staff. Our findings are discussed along two dimensions: (a) building blocks toward information literacy, and (b) personal gains achieved by immigrants for themselves and their families. We conclude that successful introduction to the QBPL—as per its mission, programming, and staff—can lead immigrants to a synergistic information ground that can help in meeting broad psychological, social, and practical needs.

Introduction

Despite considerable debate regarding its appropriateness, in recent years the term *information behavior* (IB) has risen to the forefront (Pettigrew, Fidel, & Bruce, 2001, pp.

44–45). While some researchers use it narrowly to refer only to information-seeking activities in a behavioral sense; others, such as Wilson (1999, p. 249), use it more broadly to describe “those activities a person may engage in when identifying his or her own needs for information, searching for such information in any way, and using or transferring that information,” which Wilson (2000) later rephrased as “the totality of human behavior in relation to sources and channels of information, including both active and passive information-seeking, and information use.” It was along this line that Pettigrew et al. (2001, p. 44) defined IB as “how people need, seek, give, and use information in different contexts.”

While Case (2002, p. 76), in writing the first textbook on IB (though “IB” is missing from the book's title), says IB “is a term whose time has come” largely because it “captures a broader range of information related phenomena, some of which are “receiving fresh attention,” there is little doubt that among concepts the majority of IB research has focused on information needs and information seeking. With the notable exceptions of Dervin's sense-making approach (cf. 1992) and the Leckie model (Leckie, Pettigrew, & Sylvain, 1996), we witness the plethora of models on information seeking, which overwhelmingly omit information use—as evidenced from the reviews by Wilson (1999) and Case (2002). Although there is now a growing movement to the contrary, the research emphasis on information use—at least in an applied sense—has languished at the level of access or outputs, citing how many times particular sources were accessed or used in anticipated, system-dictated ways—a recent example being Belefant-Miller and King (2003) (Tuominen & Savolainen, 1997). Yet, on another note, as Case (2002), McKechnie, Pettigrew, and Joyce (2000), Pettigrew and McKechnie (2001), and Petti-

Accepted December 3, 2003

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grew et al. (2001) make clear, the maturity of IB as a field of study is marked by the identification of new, more opaque IB phenomena together with innovative, conceptual ways of studying them. One such phenomenon that has arisen in recent IB research and which is the focus of this paper, along with approaches to understanding information use, is information grounds.

Our purpose is to elaborate on Pettigrew's (1998, 1999) notion of information grounds while illustrating how the federally mandated, outcome evaluation approach can be equated with "information use" but also dutifully enriched by considering the IB role of context. In this aim, we share findings from our exploratory qualitative study of how immigrants are using and benefiting from literacy and coping skills programs run by the Queens Borough Public Library (QBPL) in New York City, which has one of the country's largest and most diverse immigrant populations. Specifically, we show how we enriched our study's outcome evaluation approach by focusing on context and by using Pettigrew's information ground theory—both borrowed from IB research—to structure our analysis. These efforts are discussed following overviews of the connection between research on information use and outcome evaluation, and context and information grounds.

Uses and Outcomes

In their seminal 1977 work, *Public Library Use, Users, Uses: Advances in Knowledge of the Characteristics and Needs of the Adult Clientele of American Public Libraries* Zweizig and Dervin challenged researchers with identifying the uses (and possible uses) that people make of public libraries. They observed that the time for studying "how much use is made of libraries and by whom" is past, and we should switch our focus from "the user in the life of the library" to "the library in the life of the user." In efforts to meet government and public demand for accountability, librarians have struggled with meeting Zweizig and Dervin's directive: traditional approaches to evaluating public library "uses" (or outputs) are heavily quantitative and miss the contextual benefits more often revealed through the qualitative approaches associated with basic research conducted by academics. Specifically and as explained more in-depth in Dervin's later work (1983, 1992; Dervin & Clark, 1987; Dervin & Fraser, 1985; Dervin et al., 1976), they argued that users benefit in diverse ways from accessing library services that go far beyond traditional circulation and head counts. Taylor (1991) similarly documented information use as forms of enlightenment, problem understanding, instrumental, factual, conformational, projective, motivational, and personal or political—an approach that was borrowed by several researchers, including Agada (1999). These alternative and often affective ways in which people benefit from information were documented further by such researchers as Harris and Dewdney (1994) who studied battered women, by Chatman (cf. 2000) in her series of ethnographic studies on different fringe populations, Petti-

grew, Durrance, and Unruh (2002) in their investigation of how people use the Internet for situations of daily living, and by Pettigrew (2000) when she addressed information flow among nurses and the elderly at community clinics. Pettigrew, for example, found that instead of acting directly upon referrals provided by nurses to attain services, seniors said they used and thus benefited from nurses' information in simply knowing that help was available if needed, that someone was concerned for them, and that alternative ways of solving their problem could be derived from the nurses' referrals. Other examples in which broad views of information use were employed include Kuhlthau's (cf. 1991) work on the information search process, the several information skill models found in the school library literature summarized by Callison (2002), Williamson's (1998) research on the effects of incidental information acquisition, and Choo's (1998) work on organizational decision-making. Lamb, King, and Kling's (2003) study of companies' use of online information services also takes a nontraditional view of information use, especially by considering the motivation for use and non-use, as does research by Tuominen and Savolainen (1997) who innovatively employ a social constructionist approach to understanding information use. Many of these approaches are also consistent with Hirschman and Holbrook's (1986) model of the consumption experience that focuses upon a person's emotions, activities, thoughts, and values within a particular situation.

The ways in which IB researchers are taking a broad view or definition of information use also can be more narrowly equated with evaluation and outcome evaluation, specifically. Thus, we view outcome evaluation as a logical expression of information use. Ushered in recently by varied federal agencies, as discussed by Durrance and Fisher (2003), outcome evaluation can provide a means for capturing the nuances intimated by Zweizig and Dervin (1977) about program use. Viewed as the assessment of various aspects of programs, evaluation—in general—spans: "(a) the need for the program, (b) the design of the program, (c) the program implementation and service delivery, (d) the program impact or outcomes, and (e) program efficiency" (Rossi, Freedman, & Lipsey, 1999, p. 33). While evaluation issues were addressed by researchers (e.g., McClure & Bertot, 2001) and at meetings initiated by federal agencies such as the Institute of Museum and Library Services [(IMLS) 2000, 2001; University of Illinois at Urbana-Champaign (UIUC), 2003], etc., evaluation of information systems and programs (as with that in other fields) is in a state of creative turmoil as researchers realize that current quantitative approaches and tools fail to reflect the depth and breadth of impact. In discussing traditional quantitative evaluation approaches, Patton (2002, p. 152), for example, explained,

What such statistics cannot do . . . is show the human faces behind the numbers. [It] is important to provide critical context when interpreting statistical outcomes as well as to

make sure that the numbers can be understood as representing meaningful changes in the lives of real people.

Relatedly, Hert (2001, p. 160) recommends that evaluators develop metrics derived from theoretical conceptualizations, undertake constructivist approaches, and develop approaches to “transform results into design decisions.”

Such observations led to the development of outcome evaluation, an approach in which outcomes are defined as:

... benefits for participants during or after their involvement with a program [that] may relate to knowledge, skills, attitudes, values, behavior, condition, or status, [such as] greater knowledge of nutritional needs, improved reading skills, more effective responses to conflict, getting a job, and having greater financial stability (United Way, 1996).

In addition to the already reviewed innovative ways in which Library and Information Science (LIS) researchers are approaching information use, others are hitting the mark by increasingly conducting studies that focus on outcomes. The work of Peter Hernon and his colleagues on service quality adds to the field’s knowledge of outcomes, particularly those resulting from academic library services (Hernon & Altman, 1996, 1998; Hernon & Dugan, 2002; Hernon & Nitecki, 2001). The Counting on Results study comprised a multistage research design that asked a broad range of librarians to identify possible outcomes that were then tested by users (Steffen & Lance, 2002; Steffen, Lance, & Logan, 2002). Information behavior researchers also are studying the outcomes of children’s use of information technologies in public libraries (Dresang, Gross, & Holt, 2003). The need for assistance with evaluating community program use was clearly voiced in our recent survey of library professionals: 73% said their current evaluation tools were inadequate for assessing the impact of their services on individuals, families, and communities (Durrance & Pettigrew, 2000).

Context and Information Grounds

As the outcome evaluation approach forays into LIS’s research and professional fronts—frequently as a federal funders’ requirement—it can be enriched considerably by reflecting the broad, multifaceted lens by which we view phenomena of information use, and, par course, by figuring the role of “context” front and center. In this sense, outcome evaluation can benefit strongly from considering the substantial groundwork laid by decades of research regarding IB in everyday life (cf. Case, 2002; Harris & Dewdney, 1994; Savolainen, 1995) and especially of the *role of context*. Thorough examination of its multiple roles has gained increasing importance to IB researchers, who are seeking a holistic understanding of information-related phenomena from the perspectives of different actors (cf. Case 2002; e.g., Bishop et al., 2000; Dervin, 1997; Pettigrew et al., 2001; Talja, Keso, & Pietilainen, 1999; Vakkari, 1997).

Pettigrew (1999), for example, proposed both an analytic and a theoretical framework for studying context. In her contextual study of the flow of human services information (HSI) in healthcare settings she derived four different categories of context: (a) environmental factors, (b) clinic activities, and factors associated with (c) nurses as well as those associated with (d) patients. She found that although “each category of contextual factors affects the flow of HSI at the clinic in some respect, when considered collectively, these factors create ‘a grand context’ from which broader conceptual findings may be drawn” (p. 809). Drawing upon Touminen and Savolainen (1997), she concluded that “the study of information use cannot be considered in terms of an isolated individual or outside a specific . . . social context” (p. 810), and added that “a challenge for information behavior researchers is to recognize contextual factors and understand their consequences” (p. 814).

This social context framework led Pettigrew to an array of findings including the theoretical identification of *information grounds*. According to her thesis statement, an information ground is a synergistic “environment temporarily created by the behavior of people who have come together to perform a given task, but from which emerges a social atmosphere that fosters the spontaneous and serendipitous sharing of information” (1999, p. 811). From Pettigrew’s work (1998, 1999)—and following Chatman’s (2000) approach to deriving theory—one can identify the following key concepts for her theory of information grounds:

- Context rich
- Temporal setting
- Instrumental purpose
- Social types
- Social interaction
- Informal and formal information sharing
- Alternative forms of information use

Its proposition statements may be derived as follows:

Proposition 1: Information grounds can occur anywhere, in any type of temporal setting and are predicated on the presence of individuals.

Proposition 2: People gather at information grounds for a primary, instrumental purpose other than information sharing.

Proposition 3: Information grounds are attended by different social types, most if not all of whom play expected and important, albeit different roles in information flow.

Proposition 4: Social interaction is a primary activity at information grounds such that information flow is a byproduct.

Proposition 5: People engage in formal and informal information sharing, and information flow occurs in many directions.

Proposition 6: People use information obtained at information grounds in alternative ways, and benefit along physical, social, affective, and cognitive dimensions.

Proposition 7: Many subcontexts exist within an information ground and are based on people’s perspectives and

physical factors; together these subcontexts form a grand context.

Referring initially to her foot clinic settings, Pettigrew (1998) explained that an information ground can occur anywhere at any time, thus having a temporal setting which facilitates its emergence in varied, often unexpected places. Yet information grounds are based on an instrumental purpose—other than information provision (which is a byproduct of social interaction)—such as giving or receiving healthcare, haircare, bicycle repair, selling a product, etc. For example, the settings within which Pettigrew's foot clinics were temporarily located varied from community to community; yet, whether they were held in a hospital auditorium, the common room in a seniors' building, or the basement of a church or service club, the clinics were always the same in that they were attended by the same types of people: nurses, seniors, volunteer receptionists, and sometimes other people in need of footcare. Thus, information grounds are further predicated on the notion that they attended by particular social types—people who are expected to be in that setting and who play expected social roles, including with regard to information flow. Some attendees, for example, may play heavier roles than others in disseminating information, facilitating information flow through providing feedback, etc., or communicating information needs. Moreover, although people gather for a primary, instrumental purpose (such as giving or receiving footcare), their interaction, from the moment they arrive at the information ground's temporal setting is always social in nature. As people "visit" and engage in social interaction in the information ground setting, their conversation about life in general and about specific situations leads to the formal and informal sharing of information on a range of topics and in a multitude of directions. People may, for example, post information by themselves, engage in two-person or group exchanges while simultaneously acting as requesters, intermediaries/negotiators, or providers of information. Yet, it is the ways in which information is shared, in particular, that qualify these temporal settings as information grounds. Here, information needs are not presented in ways documented in formal settings such as community information centers or at the reference desk in public libraries. Although the information-exchange process is similar in that people often present their needs indirectly and professionals or other social types have to use communication techniques to identify the actual need, people rarely approach others and immediately say, "Where can I get X?" Instead, their needs for information emerge through casual social interaction, through making small talk or by chitchatting about life in general. Sometimes people use these casual interactions purposefully as a segue to questioning someone about his/her knowledge of a particular area in which the person may be experiencing difficulty, or to follow-up on the outcomes of a previous information exchange. On other occasions information is shared incidentally in a manner similar to that described by Erdelez (1997)

and Williamson (1998). In other words, information is shared serendipitously without anyone expressing (or necessarily having) a need for that information. Proxy information seeking (when someone seeks information on behalf of someone else; also known as the "imposed query") also occurs at information grounds. Additionally, people report using and benefiting from information shared at information grounds in multiple ways, including physical, social, affective, and cognitive. Finally, Pettigrew described information grounds as being *context rich* in that there are many subcontexts from many perspectives at work, and that together they form a whole or grand context. Returning to a temporal sense, she noted that as its members disperse, so does the information ground, at least until the next scheduled or accidental gathering. In the interim, new situations arise in people's lives, local and global events continue to happen, and people pick up new information which will all be shared when they meet again at their next information ground.

In addition to health clinics, Pettigrew hypothesized that information grounds might occur in such settings as hair salons, barber shops, quilting bees, playgrounds, tattoo parlors, metabuses, foodbanks, etc. Moreover, information grounds hold likely regional and global impact in that they occur across all levels of all societies, especially as people create and utilize information grounds as they perform tasks in the course of daily life. The better we understand where information grounds are situated for different populations as well as how they emerge and exist, the better we can design ways of facilitating information flow therein. Examples documented to-date include the dissemination of health and human services information, including breast cancer and HIV/AIDS awareness, at community clinics and hair salons in Canada, the Southern and the Northwestern United States, as well as general everyday and coping information via master huts in Indonesia, children's story-time hours at Ontarian public libraries, and bike shops for teens in South Seattle [Information Behavior in Everyday Contexts (IBEC), 2003].

The information ground theory, together with our approach of linking outcome evaluation with information use, was used as a framework to study how immigrants in New York City benefit from programs designed to impart coping skills and improve proficiency in English. In this effort and as modeled in Figure 1, we view IB as occurring within an information ground, outcome evaluation as a logical extension of the IB concept of information use and therefore also occurring (or being investigated) within the information ground. The information ground also encompasses different subcontexts, which form its grand context.

Current Study: Information Grounds and the New Immigrants of New York City

Immigrants have substantial linguistic, information, and practical needs for help with adjusting to life in a new country. However, due to differences in language, cultural, and other factors such as access, new immigrants are a

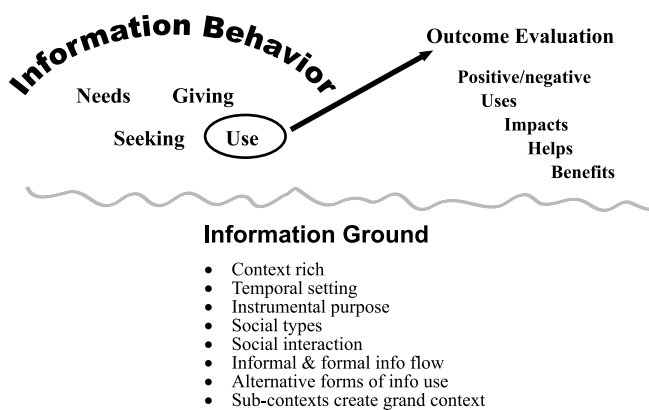


FIG. 1. Mapping information grounds, information behavior, and outcome evaluation.

difficult population to study. While substantial bodies of research have been conducted in past decades in such fields as social work, sociology, education, and the health sciences, little research has examined their predilections from an information science—or, more specifically, IB—perspective. Primary work conducted on immigrants in the United States by information scientists include Metoyer-Duran (1991, 1993), who studied the roles and types of ethnolinguistic information gatekeepers in Native American, Asian, and Latino populations in California; Chu (1999), who investigated the role of immigrant child mediators, also in California; and, Flythe (2001), who studied Latino immigrants in North Carolina as part of her master's thesis. Relatedly, Sligo and Janeson (2000) focused on Pacific immigrants in New Zealand. In addition to indicating substantial needs for information and assistance with everyday living, collectively, these studies suggest that different social types play significant roles in the flow of information and that the pursuit and receipt of instrumental help within immigrant populations may differ according to cultural background. In the professional library and information (LIS) science literature, the few papers to-date are primarily descriptive and focus upon library challenges and responses to the immigrant situation (e.g., Berger, 1999; Center for Policy Development Staff, 1990; Ganss, 1999; Gonzalez, 1999; Jones, 1999; Lazinger & Peritz, 1993; Luevano-Molina, 2001; Payne, 1998; Su & Conaway, 1995; Tangen, 1996; To, 1995; Yum, 1982). Thus, while immigrants, particularly new ones and those without widespread kin and kith already established in the host country, are considered as having substantial needs for linguistic, information, and practical help with adjusting and thriving in their new countries and while public libraries direct substantial resources towards meeting these assumed needs, little basic research exists on which libraries can base these services and, equally significantly, identify how these services may be affecting immigrant users.

The current study explored how immigrants and their families benefit from programs in literacy and coping skills run by the Queens Borough Public Library (QBPL) in New

York City, and whether these programs might function as information grounds—in Pettigrew's terms—meaning that users share information on varied topics as a result of proximity and common activity. As part of a series of studies that we were conducting across the country, we were additionally interested in testing a methodology we derived for identifying user outcomes that was based on a broad conceptualization of information use and was completely ensconced in context. Thus, our study was guided by the following primary research questions:

1. How do immigrants use and benefit from QBPL literacy and coping skill programs?
2. What role does context play in shaping these outcomes?
3. In what ways might the QBPL literacy and coping skill programs qualify as information grounds?

Since outcomes accrue to and belong to individuals, as such, their fairest articulation comes from the users themselves. To reach immigrants, a traditionally elusive population in LIS research (a key factor in the gap in the research and professional literatures), we used the case study approach, as described by Stake (2000) and comprising triangulated, qualitative methods. We conducted intensive interviews and observation with varied stakeholders and examined documentary evidence, which Patton (2002, p. 158) believes “offers a method for capturing and reporting individualized outcomes.” Prior to the site visit to Queens, we interviewed program staff by telephone and examined the QBPL website (<http://www.queenslibrary.org>), notably its pages dedicated to the New Americans and Adult Learner Programs and its WorldLinq service. During the actual site visit, we engaged in the following activities:

1. In-depth interviews with 15 administrators of the library and of the New Americans and Adult Learner Programs, as well as program coordinators and volunteers. Interviews focused upon the development and implementation of the library's services for immigrants, as well as the generation of specific outcomes for their customers;
2. Interviews with 30 New Americans Program and Adult Learner Program customers, conducted by library staff—often in the language of the user—using an instrument designed by us to determine the usefulness of the QBPL programs. Translated into multiple languages (e.g., Korean, Chinese, Spanish), it purposely included short questions to minimize intimidating respondents (while maximizing recruitment). Individual participants were selected by QBPL staff; and
3. Follow-up interviews conducted in-person and by telephone with library staff to assess the efficacy of the research instrument.

Consistent with naturalistic inquiry, data were iteratively transcribed, analyzed, and graphically depicted as they were collected, especially for patterns of impact that led to the development of statements and a progression of outcomes for the QBPL service model. In addition to such steps as

audio-recording interviews whenever possible, using triangulated methods and multiple investigators, pretesting instruments, and writing thick description—as explained by Chatman (1992) and Lincoln and Guba (1985)—we also engaged in peer debriefing and member checking to increase the trustworthiness of our analysis.

To facilitate addressing the effects of context on outcomes (as per research question #2), we analyzed the data along three dimensions: (a) the immigrants who seek assistance from a particular service; (b) the QBPL library and its activities for immigrants; and (c) the professional contributions of QBPL staff that were then considered aggregately to derive the site's "grand context" (in Pettigrew's 1999 terms) and to construct an outcomes model for understanding immigrants' use of need-based library services. These contexts are discussed as follows.

Contextual Factor #1: The Immigrants of Queens, New York

Boasting New York City's highest ethnic population, including Asian Indian, Chinese, Korean, Filipino, Bangladeshi, Mexican, Pakistani, and Colombian, over 40% of Queens' 2.2 million people claim birth outside the United States and over 50% speak a language other than English (Queens Borough Public Library, 2003). Users of the QBPL 63 branch and six Adult Learner Center systems speak over 100 languages and represent over 60 nationalities. Our 30 QBPL program users reflected this diversity: interviews were conducted in four languages, and participants ranged in age from 17 to over 65. Over 67% claimed they and their extended families were QBPL users for 1 to 5 or more years. As we learned, the act of immigration generates a diverse range of needs for New Americans and their families, including:

- Feeling secure and welcome, while learning to participate in their new community by learning English
- Navigating their new surroundings via public transport, obtaining a driver's license, etc.
- Establishing a source of income and understanding the personal banking system
- Adjusting their children to a new school system
- Learning about the country's health, social service, and legal systems

While access to quality information can assist new immigrants in meeting these needs, barriers exist along way, including suspicion, language/literacy, loss of control, sense of being outside the community, and cultural value differences (Harris & Dewdney, 1994; Payne, 1988).

Contextual Factor #2: QBPL and Its Activities for Immigrants

The Queens Borough Public Library (2003) "provide[s] quality services, resources, and lifelong learning opportuni-

ties through books and a variety of other formats to meet the informational, educational, cultural, and recreational needs and interests of its diverse and changing population." Since 1977, throughout Queens and in buildings not obviously identified as "QBPL," QBPL has offered the New Americans Program (NAP) and the Adult Learner Program (ALP). In 2002, 591,000 customers attended 27,400 free literary, cultural, and educational programs. The New Americans Program focuses on improving immigrants' coping skills and supporting cultural aspects of transitioning into American life. Its two streams of public programming thus include: coping skills workshops held in different languages, which comprise respected speakers and address such everyday needs as citizenship, employment, and education, as well as cultural arts, which highlight different cultures and aim for equal attendance by people representing the celebrated culture and other heritages. To market these events, NAP annually distributes over 10 million multilingual brochures yearly and works with local ethnic media outlets. The Adult Learner Program addresses the English language and literacy skills of over 6000 students a year. In addition to its extensive ESOL (English for Speakers of other Languages) curricula, ALP supports small group classes, conversation groups, and technology-assisted instruction, and its students receive completion certificates with recommendations for further instruction. While users often learn about ESOL classes by word of mouth, ESOL's popularity may require prospective students to win a classroom slot by lottery. For students with literacy needs, ALP runs six Adult Learning Centers that feature small group instruction and longer-term engagement. Recognizing immigrants' needs and often barrier-ridden situations, QBPL applies a strict confidentiality policy across its programs to safeguard both the new immigrants' anonymity and trust in the institution.

Contextual Factor #3: Professional Contributions of QBPL Staff

The Queens Borough Public Library's strongest response to immigrants' emotional and psychological needs stems from its staff and their combined attitudinal, linguistic, and knowledge backgrounds. In addition to providing regular multicultural training, QBPL requires that its ALP teachers hold graduate degrees in TESOL/Education or related fields. While creating a welcome and safe atmosphere, the staff engages immigrants by conducting regular outreach and nurturing ongoing relationships. Guidance from a full-time demographer ensures that branch programs and services appropriately reflect local constituencies, and projects future shifts. Branch librarians, many of them multilingual, canvass neighborhoods in search of new stores and new community organizations and to identify emerging trends in social services.

The Grand Context (Or, Outcomes Model)

When considered aggregately, these three mini-contexts form a grand context—in Pettigrew's (1999) terms—thus

comprising the synergistic interactions of clientele with the institution and its staff. Program uses or outcomes (in the “expanded by IB research” sense) are experienced by the client who interacts with the institution, its services, and the staff who carry them out. These contextual factors, when taken together, provide essential cues for identifying outcome themes relevant to the individual. Synergies among factors thus give birth to individualized outcomes, which, when analyzed in aggregate, reveal rich patterns of use by (and thus deeper understanding of the IB of) immigrant clients.

These synergistic outcomes fall under two major themes or categories: building block and personal gains. Themes labeled *building block outcomes* that provide foundational support for the new immigrant, originate with the public library and address immigrants’ initial interaction with it: their discovery of the library and feelings of safety and welcome; their increasing trust in library staff; and the successive information literacy gains that allow new Americans to take advantage of library resources, both human and material. Immigrants can come to appreciate the library as a place that eases their transition and encourage others to do the same, an endorsement of the library’s roles as a mechanism of adaptation and as a foundation upon which to identify and to work towards personal goals. Goal setting, pursuit, and achievement of building block outcomes, in turn, generates a broad array of *personal gains*, including engagement in social networks and relationship-building; bridging new and native cultures; bolstered self-confidence; enhanced English language, coping and technology skills; preparation for citizenship and employment; as well as a variety of gains for the family as it struggles to adapt amid new and different cultures. These themes of building block outcomes and personal gains are graphically shown in Figure 2, and are discussed in-depth.

Building Block Outcomes

The process of becoming information literate generates a succession of building block outcomes that collectively support immigrants’ transition and future growth. In this phase—as immigrants discover, understand, and use the American public library—they secure the confidence, knowledge, and skill to utilize library resources and staff to help them to succeed in their new environment. With the library acting as both an entrée to American life and as a springboard for future progress, immigrants progress through a series of building block outcomes that cumulatively create a solid foundation upon which to pursue of a range of personal goals. As depicted in Figure 2, these four thematic outcomes include:

1. *Immigrants discover the free public library where they experience a safe and accommodating environment.* At the library, immigrants find the emotional support they need to begin to adjust to their new surroundings. The library’s staff, many of which are multilingual, not only

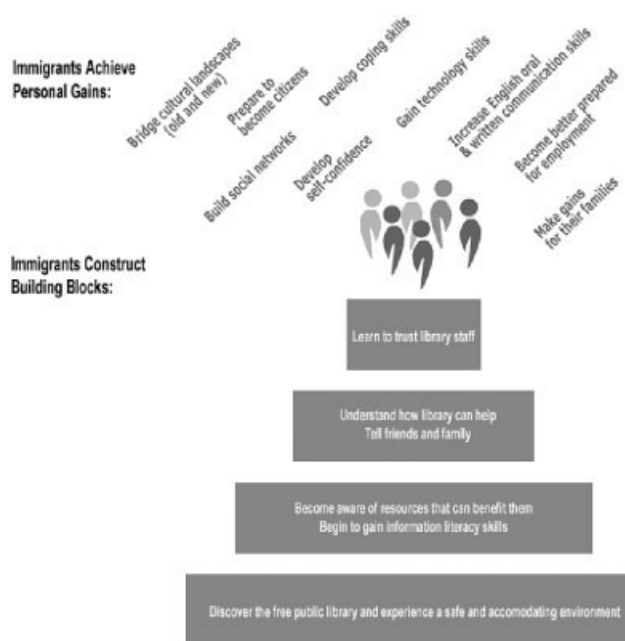


FIG. 2. Outcomes model: Progression of outcomes for immigrants.

nurture a welcoming environment, they help to ensure confidentiality by not inquiring about immigrants’ status or documentation. Accessibility is further enhanced by the library’s well-located branches, free programming, and flexible scheduling. Customers said they were “able to ask questions that were on [their] mind[s],” and “felt comfortable that the teacher spoke Spanish.” These comments were endorsed by a staff member, who explained: “It’s a non-threatening atmosphere and it’s open to everybody. We aren’t checking out people’s documents, everybody’s welcome. People come to us because we do not ask questions.”

2. *Immigrants become aware of library, community, and Internet resources that can benefit them and begin to gain information literacy skills.* Queens Borough Public Library staff conduct extensive community outreach (independently and in partnership with local organizations) as well as public relations/marketing activities to inform new immigrants about library services. Library staff also publishes and distributes library resource guides in a dozen languages to help to direct new immigrants to the library’s English language and the foreign language resources that the library strategically collects to represent the languages of the local community. Collectively, these strategies support immigrants’ discovery and exploitation of the library as immigrants begin to gain information literacy skills. As one client explained, “in this country, libraries have lots of resources, not as in mine. It really means a lot to me and to my children to come in and have all this available. I am beginning to use the Internet, I read the newspaper from my country now.” A different client emphasized the value of having materials in his/her language: “Chinese books, magazines, newspaper and Chinese librarian and staff, all these help me to learn about all the new things here in a language that I can understand.” A third user explained, “it helps you with whatever you want to improve. . . there is so much

to do, there is a lot of information, everything available to everyone, it helps you with everything.”

3. *Immigrants understand how the library can help and share their experience with family and friends.* New Americans appreciate the broad support they receive from QBPL, and encourage others to do the same. QBPL receives e-mail inquiring about its ESOL and other instructional classes from individuals who have yet to immigrate, but who were encouraged to learn about QBPL services from friends and family. One client, for example, said “My relative told me . . . she has been here a year before me. She told me you can apply for a library card and improve your English there.”
4. *Immigrants learn to trust library staff.* Over time, immigrants develop confidence in QBPL personnel as they seek and get information. This interaction, and the trust that results, supports ongoing relationships between immigrants and library staff as immigrants progress towards (and through) a variety of personal gains. One user’s comment that “they advise me on what books are good and appropriate for use in order to learn better English,” was backed up by staff, who, in separate interviews explained, “They’ll come to us. They identify the library as information and us as helpers, when someone is looking for a job, our staff person helps her look in the newspapers, outside the library, etc., and they work on the resume and talk about what’s going to happen.”

Personal Gains Outcomes

While the building block outcome theme sets the stage for immigrants’ personal gains, the latter can be as far-ranging and diverse as the population itself. The personal gains outcomes identified in our study, however, concern the social, cultural, and knowledge- and skill-based needs of a subset of Queens immigrant users. In the following we consider each gain as immigrants work toward and achieve personal gains at different times and through different activities. For example, immigrants interact with QBPL services through a variety of activities, including classroom instruction, conversation groups, and technology reinforcements, to build their English-language and literacy skills at their own pace.

Our research revealed that in this phase of transition, with their positive library experience serving as a firm foundation, immigrants can attain a diverse range of personal gains. Immigrants achieve greater understanding of their social context as they engage in social networks, develop new relationships, maintain connections to their native culture, learn about foreign cultures, and begin to understand their new American culture—all of which helps to integrate them into the social fabric of the community. In addition, new Americans attain increased self-confidence as they improve a range of skills, better prepare themselves for employment and citizenship, and enhance their parenting for the benefit of themselves and their families. The following nine themes emerged from our data regarding outcomes broadly classified as “personal gains.”

- *Immigrants build social networks.* With the support of QBPL staff, immigrants make contact with others and begin to participate in social networks; in turn, these networks help to foster relationship building throughout the community as immigrants develop relationships at the library. As explained by a client, for example, “I liked the support group we started. It was very helpful to have the opportunity to speak with other people who are in the same circumstance that I am: have someone in the family who has this illness.” Such interactions were promoted by staff, who explained, “when a customer finds out that there is someone in the branch who knows the language that they know, there’s an immediate connection, they are more willing to ask questions . . .”
- *Immigrants bridge cultural landscapes—the old and the new.* Immigrants maintain connections to their native culture as the library’s collections and programming introduces them to foreign cultures and links them to their new American culture and community. They remain in touch with their roots through technology services that allow immigrants to e-mail their friends and relatives back home, through the NAP cultural arts events, and by accessing multicultural, multilingual, multimedia materials. As one client commented, “there are computers for use by the public, this is really important. . . I will use the computers to keep in touch with my friends who are in Peru,” while another explained, “whenever they put on a program, I go with my daughter. That way the community knows more about our culture. It gives the young people the opportunity to know about our traditions and also in the case of my daughter to perform. . . I like the library because it allows my children to keep in touch with their roots through all the books and videos on our culture.”

Additionally immigrants’ worldview and experience may be broadened through NAP’s multicultural programming that regularly celebrates a variety of cultures in a variety of languages—as a staff person explained, “people learn about their neighbors.” Sense of community was also fostered in that immigrants can feel more connected to their new American community. As different clients commented, “I feel I am more American by using the library,” and “the library is like a bridge that connects every ethnic group together. While I am in the library, I feel that I belong to this community.”

- While immigrants *develop self-confidence* and boost their esteem through the support of staff and through their own accomplishment and adaptation (“It means a lot, it gives you self-confidence. It starts you off from a low level . . . you can take over here to read and relax”) they can also *increase their English language oral and written communication skills.*

English language training empowers immigrants to set, pursue, and attain a range of personal goals to benefit themselves and their families. Immigrants improve their English language skills through literacy and ESOL programs tailored to meet their needs. According to one customer, “conversation groups help me because I could get a chance to get familiar with different accents by making conversation with other people from different countries,” while another asserted, “I can speak English better than

before. I understand talking, I can ask questions, I improve. I know how to write better than before.”

- *Immigrants gain coping skills.* As their language and literacy skills improve, new Americans begin to assume greater control over their ability to navigate their new surroundings and over their financial and personal health with library assistance. At one library health program, doctors from a local hospital screened attendees for diabetes and identified two people in need of medical attention. These outcomes were explained well by QBPL staff, who said, “When clients can make out their own money order out, that’s freedom, that’s huge!” and that “It’s a big thing learning to read: they get this confidence that sends them out beyond the perimeters of their world. They are not afraid now they know they can get a driver’s license, which means they can do things they could not do before.”
- *Immigrants gain technology skills.* New Americans gain and build technology skills through classroom instruction and routine use and assistance. They can practice their technology skills with library computers; in addition, as one customer explained, “they showed me the first time how to use the program, now I can do it all by myself.”
- *Immigrants prepare to become citizens.* Not only do immigrants prepare themselves for citizenship via the library, a number of new Americans take advantage of their new status by lobbying. These efforts were readily evident in comments from several clients, for example: “The library is giving us history to prepare us for citizenship,” and “how library enriches my life is beyond description. To return the favor, I participated in the Albany trip to lobby government officials in order to get the support and funding the library needs.”
- *Immigrants become better prepared for employment.* Immigrants improve their candidacy for employment with enhanced language and technology skills. New Americans use the QBPL’s resources to job search, develop their resumes, and fax applications. As explained by two different users: “I want to learn English quickly which will help me find a better job,” and “It was the staff who helped me to get the census info needed for my first job in this country. The ESOL advanced English classes, the materials from the Adult Learning Center, all helped me polish my English and got me a job as a translator for the Board of Education.”
- *Immigrants make gains for their families.* New American families better manage daily challenges—at home and at school—as they grow amid new and different cultures through using NAP coping skills programs and other services, such as homework help. For example, they can improve their parenting skills as the following client explained: “now I know more about how to handle the emotional problems of children. There is a great difference between the Chinese culture and the American culture in dealing with children and expected behaviors from children. Advice from experts is much needed to find out the balance between two cultures.” And they can get homework help: “I picked up my daughter after work and finished her homework . . . It meant a lot to me. My daughter still uses many books from the library to do her homework.”

Information Ground Revisited

Beauty salons, ballparks, bike shops, tattoo parlors—and, as we believe, immigrants’ coping skill and English as

a second language classes—all have something important in common: they are places where people naturally share information in multiple directions (i.e., anyone can give and obtain information) both purposefully and serendipitously. Collectively, the themes we discussed regarding the ranges of possible outcomes received by immigrants together with the mini-contexts described earlier, suggest that the QBPL literacy and coping skills model does indeed function as information ground. While program participants gather to improve their English language proficiency or to learn new skills, they reap other benefits mostly through interacting and thus, communicating with other program attendees and their families and with program staff. Based on our analysis, many of the outcomes accrued to the QBPL users result from this multiplier effect of the information ground.

Furthermore, QBPL staff foster these information grounds with their significant knowledge of—and responses to—immigrant needs. They know and appreciate that immigrants encounter a variety of gaps in essential knowledge of their new environment, such as the availability of local health care, employment requirements and processes, local curriculum structures, citizenship mandates, banking structures, and public transit schedules. The staff anticipates these needs and communicates, via information and referral services, workshops, and classes, the “how-to” bridge the knowledge gaps. In the process, the staff expands their roles as collaborators and confidantes as they metamorphose into trusted professionals and later, perhaps, as mentors and guides.

While the QBPL programs are located in different buildings and held at different times of the week, they are alike in that they are attended by the same social types, for the same instrumental purpose but who engage in social interaction and thus share information, both informally and formally, as a result. Moreover, the information ground participants, including QBPL staff, report diverse outcomes that benefit themselves, clients, friends, and family. In this sense it appears that the QBPL programs—as rich information grounds—are ripe for facilitating information flow about such possible topics as healthcare. Archetypal examples of how information grounds can be utilized along this line include the dissemination of breast cancer information to African American women at a San Diego hair salon (Gladwell, 2000) and the sharing of HIV/AIDS information with at-risk teens at a barber shop in south Seattle (IBEC, 2003).

Discussion

Our experimental IB approach to studying the outcomes to new immigrants of need-based services as they interact at information grounds was highly challenging. Human subjects approval was difficult to obtain because of the possible illegal immigration status of potential participants and their label as a vulnerable or at-risk population. Relatedly, it took several months to gain permission from QBPL to conduct the study and our “immigrant interview instrument” under-

went several iterations before meeting QBPL approval. Although we implemented varied measures to increase the trustworthiness of our data, limitations or weaknesses are inherent—as they are with any method. While we would have preferred to collect data from the users or customers ourselves under prolonged engagement, especially because such steps might have facilitated the collection of data bearing negative-connotations towards the QBPL programs and thus enabled stronger negative case analysis and the identification of anomalies, language and other access barriers were prohibitive. While having program staff conduct the interviews may have facilitated data collection because they had immediate access, spoke in the user's native language, and as a known person might have facilitated the user's comfort level, this same level of intimacy might have discouraged users from speaking frankly for fear of being removed from the program, for cultural reasons, etc. Moreover, because program staff selected individual user participants, we had little control or knowledge over the degree to which users represented the most or least articulate informants. Due to study constraints, therefore, our sample was one of convenience. While major differences in behavior and perceptions may occur among people from different ethnic and cultural backgrounds, we did not attempt to categorize responses or behaviors along this line due to the small number of participants.

Despite our inability to conduct a more broad-ranging examination of the IB of immigrants, one that addressed negative outcomes and even the situations of non-users, we believe that our exploratory findings provide significant light on how immigrants can benefit from community programs offered by public libraries. While the experience of the users in our study may be somewhat idealized and therefore only partially representative of the average immigrant's (who gets "connected to the system" as were those in our study) experience in New York City, the depiction is accurate at minimum in a best-case scenario and is consistent with the perceptions of the staff, who conducted the interviews and were highly experienced with immigrant populations. Starting data collection by interviewing staff was a first step, and consistent with a naturalistic approach in which a holistic, multi-perspective view is desired. In future work with similar populations we will take several measures to circumvent the barriers we encountered in the current study, namely by (a) interviewing participants outside the supposed information ground, (b) employing non-library staff but who speak the participants' language to conduct interviews—to reduce incidence of a Hawthorne effect, (c) conducting both more in-depth and prolonged (or repeated) engagement with particular informants, and (d) increasing data collection with participants' family members as well as with similar informants and gatekeepers who are situated in different settings.

Further on a methodological note, we found that Pettigrew's approach worked very well for analyzing context along different categories or dimensions and then considering them aggregately to attain the big picture or grand

context view. By breaking down and trying to understand the worlds or mini-contexts of our phenomenon's different stakeholders we gained an in-depth, holistic view of how their worlds coincide and act synergistically during the classes. Along this line, we also found evidence that the literacy and coping skills classes function as information grounds in that the immigrants, their families and friends (if present), and the instructors converse about a variety of topics that occur as a sideline or byproduct of their instrumental activity of attaining specific skills. Such identification suggests further transferability of Pettigrew's theory. Moreover, we found that our focus on outcomes was infinitely stronger and more easily analyzed by taking a broad perspective of information use and by stressing the multi-dimensional role of context.

The findings of greatest surprise or interest included how community services lead to building blocks for immigrant customers such that they become long-term users in several terms: they, themselves, as they become users of different library services, their children and other relations who use the library as a result of being introduced by the family member, and future immigrants who are advised about the library before even reaching America. We were also surprised by the strong social impact of the QBPL programs, which was, however, predicted by the information ground framework. Moreover, our findings revealed a picture of the immigrant client that is consistent with the traditional view of a long-term library user. We imagined that would not be the case with immigrants since they would likely be transient and using the library/neighborhood as a stepping-stone to a different life in a different geographic area. While we further found that while QBPL's immigrant client base represented nationalities worldwide, cultural uniqueness' aside, their customers shared a range of comparable needs—a daunting labyrinth of psychological, social, and physical imperatives that immigrants must navigate as they join American life. The need for emotional security serves as a root psychological need, one that implies incubation against the many traumas of transition. The need for emotional security, in turn, drives a range of social needs, including the need to meet others of similar circumstances, to befriend others and to feel part of the larger, new community, as well as to maintain connections to their native culture for themselves and for their families. Connections to the native culture satisfies only part of immigrants' social needs; our research indicates that immigrants also need to have their native cultures represented within the community that they are attempting to join, as well as to understand the pressures that American and other new cultures exert upon themselves and upon their families. In this context, immigrants need to develop self-confidence that can support the related needs of self-sufficiency and of transitioning their families to American life. Immigrants thus require accessibility, both physical and financial, as well as the linguistic abilities to communicate in and to comprehend their new environment. Further research is needed on whether the outcome themes that emerged from our investigation reflect

those involving immigrants in similar situations. In other words, does a similar interconnected range of thematic building blocks and personal gains occur in other programs for immigrants?

At Queens Borough Public Library, a *successful* introduction to the library—to its mission, programming, and staff—leads immigrants to a fertile and synergistic information ground that can assist in supporting their broad spectrum of psychological, social, and practical needs. This exploratory case study of QBPL's programs revealed a range of outcomes that one can expect (and therefore, transfer) from a library service well designed to reach and to serve immigrant communities. It also illustrated the benefits of enriching approaches to outcome evaluation through IB research, most notably by taking a broad view of *use* and incorporating *context*, as relevant service models emerge that might be used for basing and expanding future services. According to our research the challenge for librarians will be to create inverted information grounds: whereas information grounds utilize social interaction to foster information flow, librarians must use their information services to facilitate social interaction, which will, in turn, enhance their contributions to building and maintaining social capital within communities. For information grounds, information flow is a byproduct of social interaction. The trick for libraries is to make social interaction a byproduct of information flow. Creating and harnessing information grounds with their inherent varied forms of information seeking and information use is a natural first step.

Acknowledgments

We wish to thank the anonymous reviewers and JASIST guest editors, Charles Cole and Amanda Spink, who provided invaluable suggestions for improving this manuscript, along with the Institute of Museum and Library Services (IMLS) for supporting our research, and our current and past research assistants at IBEC (www.ischool.washington.edu/ibec). This study was made possible by the generous cooperation of the staff at the Queens Borough Public Library and their customers, without whom there would have been no context or information ground.

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