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Enhancing Academic Investment through Home—School Connections and Building on ELL Students' Scholastic Funds of Knowledge

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ABSTRACT: This discussion examines an academic intervention designed to enhance the motivation and classroom engagement of English Language Learners (ELLs) during literacy-based activities. Stemming from a sociocultural perspective of literacy (Au, 1993; Perez, 2004) within a funds of knowledge framework (González, Moll, & Amanti , 2005), our approach emphasizes personalized learning (Redding, 2013) by having the students design, develop, and implement classroom lessons based on their own interests. As part of the process, the participating students made clear connections between home and classroom practices, resulting in higher productivity during literacy and oral activities. By tapping into what we call scholastic funds of knowledge, the students also showed higher levels of meta-cognitive awareness in designing activities for their peers and revealed a broader perspective of what it takes to develop academic lessons. Not only do the results demonstrate an increase in the participants' investment in classroom activities (Norton, 1995), their student-directed lessons had a positive effect on the engagement of other students within the class as well.

Keywords: funds of knowledge, personalized learning, home visits

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According to the United States Department of Education (2015), Latin@s comprise 25% of the student population in public education—second only to White students (50.5%). Not only are Latin@ students the fastest growing minority group in the United States (US) (National Center for Educational Statistics, 2014a), they constitute the greatest number of English Language Learners (ELLs) in American schools (National Education Association, 2015), and they represent the largest number of students who live in poverty (Hugo Lopez & Velasco, 2011). The 13% dropout rate for Latin@s remains higher than African American (8%) and White (4%) students (Santiago, Galdeano, & Taylor, 2015). By 2060, Latinos are predicted to comprise 38% of students between the ages 5-14, as compared to Whites (33%), African Americans (13%), and Asians (7%) (Santiago et al., 2015). Even more concerning, the dropout rate for foreign born Latin@s is an astounding 28% (National Center for Educational Statistics, 2014b). This statistic is especially alarming in light of the fact that Latin@ immigrants account for the vast majority of US immigration (Migrant Policy Institute, 2014). Considering that Latin@s are reshaping the demographic, linguistic, and economic landscape in US schools, it is crucial that teachers are provided with the most effective tools to accommodate their current and future students.

This discussion eschews conventional pedagogical strategies engendered within the current tide of academic standardization by suggesting specific methods for bridging Latin@ ELL students' life experiences into classroom practices as a way to enhance their academic progress. To do this, we call attention to instructional approaches for working with ELLs that integrate personalized learning strategies (Redding, 2013) and home — school connections (Johnson, 2014a). We focus on describing an instructional intervention that enhanced the academic progress of two Latin@ ELL students in a 4th grade classroom in southeastern Washington State. In this article, we illustrate how home contexts can be bridged to the classroom by building on students' funds of knowledge—i.e., their "historically accumulated and culturally developed bodies of knowledge and skills essential for household or individual functioning and well-being"

(Moll, Amanti, Neff, & González, 2005, p. 72)—in a way that prioritizes shared power in collaborative classrooms.

Policy Connections

Getting to know students' families provides a window into ELLs' home cultures and can broaden teachers' perspectives of the roles that parents are expected to play in their children's education (Trumbull et al., 2003; Trumbull & Rothstein-Fisch, 2011). The widely documented positive academic outcomes stemming from school, community, and family collaborations (Auerbach, 2012) have prompted federal education policy to require schools under improvement status to "include strategies to promote effective parental involvement" (No Child Left Behind, 2001a). Additionally, schools receiving Title III (English language acquisition) funding "must implement an effective means of outreach to parents of limited English proficient children" (No Child Left Behind, 2001b). Unfortunately, schools under the most stringent federal sanctions are usually located within socially diverse contexts where primarily White, middle-class teachers struggle to identify with minority students' backgrounds and communicate with parents (Auerbach, 2012).

Recognizing the need for more information on effective approaches for collaborating with families, Epstein (2009) urges for more research on the effects of "specific practices of partnerships" across various educational and demographic contexts (p. 15). Here, we tend to Epstein's call for specific examples of partnerships with parents by demonstrating ways to enhance the educational environment for ELL students that involve family engagement strategies. We are particularly interested in how teachers combine home engagement strategies with student-directed lessons to enhance academic development. By focusing on two ELL students, we demonstrate the effects of home visits, family engagement, and student-directed classroom activities on the students' academic performance and perceptions of school. Specifically, we examine how involving ELL students in the process of designing classroom activities based on their interests and funds of knowledge affects their motivation and overall investment in classroom practices (Norton, 1995).

Conceptual Framework

Our conceptual framework is grounded in the well established concepts of funds of knowledge (Gónzalez et al., 2005), educational investment (Norton, 1995), and personalized learning (Redding, 2013).

Tapping into Funds of Knowledge

A wealth of research exists that focuses on the effectiveness of integrating students' funds of knowledge into classroom practices (for detailed review of funds of knowledge research, see Hogg, 2011 and Rodriguez, 2013). Rodriguez (2013) thoroughly outlines the efforts put forth by multiple researchers and educators to reshape the context of public schooling by integrating students' out-of-school experiences and cultural backgrounds into the academic realm. In our discussion, we draw on multiple examples of the participating students' interests, experiences, and daily activities as examples of their out-of-school funds of knowledge. In addition to building on the students' out-of-school funds of knowledge, we also promote tapping into students' scholastic funds of knowledge (i.e., the accumulated set of skills, aptitudes, and habits students draw on when faced with accomplishing academic tasks) to facilitate learning processes.

Although others havelooked at the teachers' funds of knowledge in classroom practices (Hughes & Pollard, 2006), scant is research on students' school-based funds of knowledge. Our notion of scholastic funds of knowledge is inspired by Zipin's (2009) concept of funds of pedagogy—i.e., "inter-subjective ways of knowing and transacting knowledge" (p. 324). From this perspective, Zipin stresses the importance of understanding how students learn within out-of-school contexts as a means of connecting learning

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strategies to schools. We extend this notion by also considering the important individual nuances of how students develop preferences for learning, organize information, and express themselves within school settings. We highlight this process by demonstrating how student designed and led lessons can increase students' overall engagement in academic contexts.

Engaging students and their families outside of school contexts strengthens relationships, makes the students' funds of knowledge (i.e., what they know) and funds of pedagogy (i.e., how they learn) more apparent, and induces dispositional shifts in teachers' approach to working with ELL students (Johnson, 2014a). That said, this approach remains on the margins of professional concerns that continue to be driven by standardized assessment and the gaze of administrative accountability (Cremin et al., 2012). Clear illustrations of how family engagement and funds of knowledge positively impact students' academic progress is critical to prompting a change in professional orientations mired in standardization and accountability measures. Examples of applying students' out-of-school interests into classroom content are abundant in research pertaining to a variety of academic content areas--for example: writing activities, nutrition, goal setting, bullying, social justice, immigration, and science (cf. Dworin, 2006; Fraser-Abder et al., 2010; Ghiaciuc et al., 2006; Jones, 2004; Kurtyka, 2010; Olmedo, 2004; Upadhyay, 2005; Varelas & Pappas, 2006). Our aim here is to build on these perspectives of integrating students' out-of-school funds of knowledge to enhance learning opportunities while additionally demonstrating how to tap into their scholastic funds of knowledge to propel academic progress and deepen their educational investment.

Educational Investment

When students do not speak English as their first language, even more consideration needs to be taken while designing linguistically appropriate lessons. Student difficulties based on language acquisition factors often cause educators to view their students from a deficit orientation (Johnson, 2011a, 2011b, 2014b, 2015). Combating this deficit orientation requires looking at the context from the students' perspective. To do this, we must peer beyond just the skills and cognitive strategies involved in academic activities, and also recognize the critical role that students' feelings and emotions play in their willingness to learn (Au, 1993). Gaining a true appreciation for these feelings necessitates a better understanding of the students' home contexts. Moreover, learning about students' emotional and intellectual strengths outside of school as a means of scaffolding their background knowledge to classroom practices can enhance their educational "investment" (Norton, 1995).

According to Norton (1995), the notion of investment "presupposes that when language learners speak, they are not only exchanging information with the target language speakers but they are constantly organizing and reorganizing a sense of who they are and how they relate to the social world" (p. 18). Here, we build on Norton's concept of investment and apply it to the involvement of ELL students in the development, implementation, and evaluation of classroom lessons as a way to "reorganize a sense of who they are and how they relate to the social world" of school. Our application of "investment" positions linguistically and academically marginalized students at the center of content instruction, providing them with the affective stability to feel confident when drawing on their background knowledge within educational contexts. A major part of this process, though, involves the ways in which teachers actually set the stage for their students to become invested in the classroom community through a personalized learning approach.

Personalized Learning

Inciting intrinsic motivation in any student is crucial for propelling academic progress. "Personalized learning" approaches draw on social, emotional, and intellectual dimensions that guide the way classroom activities and routines are structured (Redding, 2013). This orientation to learning assumes that the foundation for inspiring students begins with developing sincere relationships with students and their families. As Redding (2013) stresses, "personalization ensues from the relationships among teachers and learners and the teacher's orchestration of multiple means for enhancing every aspect of each student's learning and development" (p. 6). Aligned with the development of strong relationships within this framework is the implementation of specific strategies to cultivate intrinsic motivation to cultivate academic mastery. Through purposeful applications of personalized learning, teachers can enhance their students' motivational competencies to engage in their education on a deeper level (Redding, 2014a, 2014b).

A significant part of enhancing ELL students' educational experience is rooted in the type of relationships teachers develop with the students' families (Auerbach, 2012; Chen et al., 2008; Kyle, 2011; Kyle, McIntyry, Miller, & Moore, 2005). In addition to establishing stronger avenues of teacher — parent communication, engaging families on a personal level illuminates the types of language and literacy practices that students use to navigate their everyday lives. That said, although the most profound way for teachers to gauge their students' home literacy practices involves family engagement strategies, most educators are inflicted with multiple social and professional biases that inhibit this process (Johnson, 2014a). Furthermore, the complexities of collaborating with families are increased in districts where there are greater differences in the socioeconomic and ethnic backgrounds between educators and students (Olivos, 2012). Our concerted effort to establish family — school connections to integrate students' funds of knowledge into personalized learning strategies sheds light on how authentic collaboration and mutual trust are established between teachers and students when both sides unlearn deeply engrained notions of power within traditional school based roles and relations (Henderson & Zipin, 2010).

Methods

Our methodological approach is described in terms of the research context, participants, instructional intervention, and the data collection process.

Context

This discussion focuses on students in Angela Johnson's 4th grade classroom at Adelante Elementary School in the Sunshine School District in the state of Washington (all names of schools and participants are pseudonyms). Having the participating students in Angela's classroom provided direct daily access to the students and allowed us to build on previously established relationships with the students' families. This type of case study approach provides an optimal environment for conducting ethnographic participant observation based on "experiencing, enquiring, and examining" classroom contexts from the students' perspectives (Wolcott, 2008, p. 48). The demographic and academic characteristics of Sunshine district make this project particularly relevant to the larger ELL context. According to the Washington State Office of Superintendent of Public Instruction (OSPI), the Sunshine district has an overall enrollment of approximately 17,000 students, 35% of whom are classified as ELL students (OSPI, 2015). The Sunshine district has the second largest overall enrollment of Latin@ students in the state of Washington (approximately 11,500), and a significant participation in the federal Free and Reduced-Priced Meals program (75%) (OSPI, 2015).

Academically, many of the Sunshine schools are under "school improvement status" sanctions defined by the federal No Child Left Behind Act. Currently, Adelante Elementary is in federal Improvement Status "Step 3." Approximately 42% of the students at Adelante Elementary come from a minority (primarily Latin@) background and 48% of the students are on free and reduced-price lunch. At the time of the study, most of the Latin@ students in Angela's classroom spoke Spanish as their first language. While some of them had exited the bilingual program, others still have not passed their Washington English Language Proficiency Assessment exam to exit the program (OSPI, 2013).

All ELL students are required to take an English language assessment yearly to assess their English language proficiency to determine whether or not they still qualify to receive language services.

Research Participants

This project is a case study focused on two (unrelated) students: Natalia and Carlos. Both students were born in the US and raised in Spanish-speaking households. These two students were recruited based on their personal background and academic performance. Even though they were not the only eligible students to take part in this project, they were the first to be approached about participating, and both readily accepted. Additionally, pre-established relationships with the families during teacher conferences facilitated the process of securing informed consent from their parents. In addition to experiencing academic difficulties, Carlos and Natalia were chosen to be part of this project due to the fact that they are both Latin@ students who come from a Spanish-speaking context and low socioeconomic status (SES) home contexts. Although both students come from an ELL background, only Carlos received official bilingual education services (K-3rd) because Natalia's parents waived her participation for ELL services. That said, Natalia had been receiving speech therapy services that she started prior to Kindergarten and was hesitant to participate in class or interact with other students. Additionally, both students have attended three different elementary schools, and this study was conducted during their first year at Adelante Elementary School.

Instructional Intervention

The classroom intervention described here is based on having two Latin@ ELL students individually design and implement two lessons each (one for language arts and one for science). The purpose of this project was to determine how the involvement of the students in the development and implementation of classroom activities affected their motivation, engagement, and investment. Hogg (2011) explains that students' funds of knowledge can usefully inform both what is taught and how. The first may be achieved by means of inclusive practice

in terms of the contexts drawn on for teaching content and skills. The second involves supporting different ways of being in the classroom, including different social interaction styles, by setting tasks that put academic knowledge and skills to use for lifeworld goals (p. 674).

In addition to drawing on the students' out-of-school funds of knowledge (i.e., what is being taught), our specific strategy was based on promoting personalized learning while also drawing on the students' scholastic funds of knowledge to prepare the lessons (i.e., how it is taught). This parallels Meltzer and Hamann's (2004) description of creating a responsive classroom "where students are acknowledged, have voice, and are given choices in learning tasks, reading assignments, and topics of inquiry that then strengthen their literacy skills" (p. 14). An important component of our approach included conducting home visits to: 1) learn about the students' funds of knowledge as a resource for helping them design the lessons; and 2) build stronger avenues of home — school relationships with the students' parents.

The role of the teacher (Angela) during the development and implementation of the lessons was that of a facilitator. This entailed working with the two participating students individually during time periods when regular class was not in session (e.g., before school, during lunch or recess). The students were not told what to do or how to do it. Rather, they were assisted with securing resources, provided feedback on some of the more technical points of teaching the lesson (e.g., how to form groups, how much time to expect for activities, and classroom management suggestions), and offered guidance for potential problematic situations (e.g., how to distribute research materials or how to hold their peers accountable for participating). Finally, both students dedicated multiple hours of their own time in the preparation of their lessons, both at school and at home. In addition to allowing the students to use the classroom before class and during lunch, the teacher provided resources and offered editing assistance with materials produced on the computer (e.g., graphic organizers). Other than this minimal support, the students prepared everything on their own (i.e., without the teacher).

Data Collection

The intervention took place over four months (November 2012 to February 2013). During November, we conducted home visits with each student to meet their families and observe their funds of knowledge. After establishing those home — school connections, Angela met with Carlos and Natalia individually to plan out the implementation of their lessons. This process spanned three months (December to February) and involved alternating turns developing and implementing the lessons. Each lesson project spanned approximately 2 weeks, with time allotted at least 4 days per week for the instructional component. Data were collected in three phases:

1) Before the academic intervention: participant observation and interviews during home visits;
2) During the intervention: field notes, lesson documents, and student evaluations after lesson development and implementation; and
3) After the intervention: follow up interviews with student participants.

Before the academic intervention, observations of the students' academic and behavior patterns in the classroom were noted on a weekly basis during September and October. These observations were used to prompt discussions during the semi-structured interview during the home visit. The audio recorded interviews were conducted with the students and their parents during a home visits to get a better understanding of their literacy patterns at home, background experiences, and interests. During the academic intervention, all documents were analyzed for emerging themes that highlighted the students' academic progress, connections to funds of knowledge, and family engagement. After the intervention, unstructured follow-up interviews were conducted to give the students time to reflect on the overall process. These discussions were scrutinized for comments concerning shifts in perception toward school and the students' understanding of how to design and implement activities. The analysis describes connections between the three components of the process and demonstrates the importance of the entire process as

an important learning tool that can be replicated with other students.

Analysis

Although parent communication can be done in many ways, "the most effective way to develop and establish rapport with parents and learn about their community is through a home visit" (Faltis, 2001, p. 177). In addition to alleviating pressure on parents to physically go to the school to be perceived as "involved," home visits simultaneously demonstrate the educators' willingness to share authority and learn from their students' families and communities (Johnson, 2014a). Connecting with parents through home visits allows teachers to see a child through the parents' eyes and better understand the student's school experience from the parents' perspective (Kyle et al., 2005). Not only do home visits produce an essential shift in the perceptions of educators toward minority students and families, they allow teachers to develop a better understanding of the variety of funds of knowledge and skills situated within students' homes (Ginsberg, 2007; Johnson, 2014a; Lopez et al., 2001; Meyer & Mann, 2006).

Home — School Connections

For this project, we conducted home visits with Natalia and Carlos (one visit each) to get a better understanding of their perspectives on issues surrounding language and education, while simultaneously establishing a strong connection with their parents. Both visits lasted approximately 2 hours. During the visits, we were particularly interested in discussing the students' views on their home activities, literacy patterns, and language use. The following descriptions represent our observations of the students' home environments as well as the students' perceptions of their language and literacy practices.

Natalia. During our home visit with Natalia, multiple examples of her funds of knowledge emerged. She lives in a two-story home with her mother, siblings, and her uncle's family. They live with her uncle (her mother's brother) because her father is in prison, so her uncle helps with financial support. At the time of our interview, Natalia's mother was 9 months pregnant and admitted to being very physically exhausted. Before taking pregnancy leave, Natalia's mother worked in an elderly care retirement home. She normally works long hours and has only a few days off a month. Since she does not have a lot of time at home with her children, she expects them to sit down and do their homework every day, usually right when they get home from school. In addition to homework, Natalia and her sister have multiple household responsibilities, namely cooking, sweeping the floors, and cleaning the backyard. Their home is close to the school, so Natalia walks her 3rd grade sister to school every day.

In addition to being very skilled at helping with daily household responsibilities, Natalia's funds of knowledge also include a range of literacy activities. Natalia reads a lot of books at home and frequently uses her Kindle e-reader; animals are her favorite topic. Natalia emphasized that she especially loves to read books from the library (and her personal collection) about animals and fossils. Her mother reported that Natalia is always very excited to talk about what happened in school and feels the need to share it with her. Since her father is not at home, Natalia writes letters and postcards to him in prison every week and she explained that she gets really excited when she receives one of his postcards back. In addition to these types of "affective literacy" (Johnson, 2014b) exchanges with her father, Natalia records her thoughts daily in a secret diary that has a lock with electronic password. Natalia explained that at school, she is particularly interested in books about grizzly bears, wild animals, rabbits, rocks, minerals and fossils, dinosaurs, and other science topics. She also admitted that she enjoys drafting long 'pre-writes' to ensure her narratives are interesting and well done.

When our discussion turned to issues of language, Natalia's mother told us that Natalia couldn't speak until she was 3 years old. Both Natalia's parents are native Spanish-speakers, and both speak fluent English. Her mother commented that they spoke Spanish with Natalia when she was very young, but decided that Natalia would only receive "commands" at home in English when she was about 3 years old. Her mother thought Natalia was "confused" about what language she should speak since both English and Spanish were spoken in the home. Her mother also explained that "Natalia thinks faster than she can speak," causing her to have communication difficulties. Although Natalia started receiving speech therapy services through the Sunshine School District when she began preschool, she did not receive any services through the district's bilingual education program (even though her first home language is Spanish). Natalia reported that she doesn't read or write in Spanish much, but she "knows a little bit of the language." For her, "knowing" the language equates to school-based literacy practices and does not consider out-of-school literacies as a legitimate skill (Teague, Smith, & Jimenez, 2010). This type of self-perception is common in contexts where ELL students do not receive formal literacy instruction in school (Johnson, 2014b). In spite of that comment, Natalia admitted that she writes to her father in Spanish with her mother's assistance, and often likes to read books in Spanish.

Carlos. Like Natalia, Carlos' funds of knowledge became evident through our home visit with him. Carlos lives on a small farm with his sister and parents on the outskirts of the city. His family owns five horses and three Chihuahuas, and he spends a lot of time with his grandmother who lives on the farm next to their lot (about 400 yards away). Although his house is newly built, they had lived on the same property for many years in a mobile home.

> **We have described how both motivation and engagement are affected by student involvement and personalized learning strategies when students are given the opportunity to draw on their scholastic funds of knowledge to design their own lessons and, in turn, how this impacts their investment in their education.**

Carlos enjoys playing with Legos, cleaning his toy cars, transformers, spaceships, and playing with worms and bugs. He has a collection of beetles outside in a coffee can and in some Tecate beer bottles. Carlos' sister, who is a sophomore in high school, frequently does homework and motivates him to do so as well. Homework is done when and where mother can supervise him, so he does homework on the table by the kitchen while listening to his iPod. Carlos' parents both graduated with their AA degree from University of Phoenix— their diplomas were framed and displayed on the wall in the living room. His father served in the military but is now in between jobs and his mother is a social worker. Carlos does not ride the school bus because his parents decided that Adelante Elementary was the best school for him even though it is not within the bus boundaries. Both parents expressed heated concerns with the way that Carlos's previous teachers at different schools treated him--isolating him in the back of the room so he could not interact with other students due to behavioral issues.

Carlos reported that he likes to read about science and do experiments. This was evident in his collection of books about bugs, Legos, the human body, and Star Wars. He also had the Guinness Book of World Records and many comic books. His mother takes him to get books from the library weekly. His favorite library books are about history, jigsaw puzzles, and graphic novels. He said that he doesn't like to read "thick, fat chapter books" because they are too difficult to understand and he needs to imagine the story in his head. Carlos does better reading shorter (i.e., faster) books, even though he mentioned how much he enjoyed reading *Tuck Everlasting* with the whole class. When asked about other literacy activities he does at home, he reported that he likes to write Christmas cards.

Although Carlos' parents are native Spanish-speakers, English is spoken most prominently at home. When his mother said that she actually uses a lot of Spanish at home, Carlos interjected that he still didn't know a lot of Spanish; yet, during class time, Carlos acknowledges (and responds to) statements and directions given in Spanish. Carlos' perception of his language abilities is reflective of Natalia's comments about her language proficiency, which essentially were focused on literacy practices. According to his mother, Carlos spends time during the summer in Arizona with his grandmother who only speaks Spanish. Carlos' mother mentioned that his grandmother reads books to him in Spanish during this time, which is his only exposure to books in Spanish. Despite being exposed to books in Spanish with his grandmother, he doesn't read them at home. After discussing his experiences with his grandmother in Arizona, Carlos reported that he can read "a little bit" of Spanish, but he can't write in Spanish.

Classroom Applications

Based on the information collected from the home visits, Angela worked on learning strategies with both students individually to plan out classroom lessons to deliver to their peers. According to Dornyei and Ushioda (2011), "[l]earning strategies are techniques that students apply of their own free will to enhance the effectiveness of their learning; in this sense, strategy use, by definition, constitutes instances of motivated learning behavior" (p. 51). This also fits with Redding's (2014a) emphasis on enhancing students' motivational competency by "connecting learning tasks to the student's personal aspirations" (p. 16). Since childrens' funds of knowledge derive from a variety of sources (Andrews & Yee, 2006), Carlos and Natalia were encouraged to chose topics that they were interested in exploring with their peers. Stemming from this philosophy, the students' personalized learning projects are described below in terms of their personal investment in the development and implementation of the lessons.

Natalia. In the following language arts and science lessons, Natalia demonstrates her scholastic funds of knowledge by designing strategies to guide her classmates through conducting research, organizing data, displaying findings, and presenting information. Building on Natalia's funds of knowledge around books and her interest in animals, her first project was a literacy lesson about animals (inspired by her fascination with grizzly bears). She decided to make an example poster with information about grizzly bears that included their habitat, hunting techniques, curiosities, reproduction, and fun facts. She instructed the class what she expected them to do by showing them her colorful and well organized poster. To help her peers with their own research, Natalia created a graphic organizer containing the categories she included on her own poster. After modeling her research on bears, Natalia gave her classmates the opportunity to choose their favorite animal, conduct research, and then present their poster to the class. She also had the students present their research to the 2nd grade class in the room next door.

Natalia's second project was a science lesson on fossils and minerals based on an experiment involving observations of the fossilization of a sponge over multiple days. This lesson reflected the science themes that she mentioned during the home visit. She decided to incorporate reading and writing along with an experiment on how to make fossils. Natalia had her peers use their experiment notebook and record their experiment development such as observations and conclusions. Reflecting Au's (1993) claim that "all children come to school with certain experiences and interests in literacy, and that as teachers, we should seek to recognize and to build upon these experiences and interests" (p. 36), Natalia created a graphic organizer consisting of "what you know" and "what you learned," as well as an additional box for vocabulary. Her idea for the vocabulary box is based on a book she has at home that highlights vocabulary words, something she thought students should find on their own as they were reading. Natalia was given time each day for two weeks to facilitate group discussions with her peers about their observations. This entailed teaching a variety of academic vocabulary and guiding her peers through the process of science literacy skills (e.g., procedures and descriptive observations).

Natalia's evaluations. After both lessons, Natalia was asked to fill out a self-evaluation to reflect on her role in the overall process of the lesson and how it affected her classmates. Natalia's description of her peers' behavior shows that she understands how classroom management affects the way a lesson is taught. She noted both positive aspects: "It went really good because everybody was paying attention and following directions," and negative ones, "Not that easy to get them to follow directions, quiet down (it was way too loud sometimes)." In addition to Natalia's classroom management observations, she also demonstrated an understanding of how teachers are positioned within a classroom activity: "I learned that they get excited about the project and I learned about the project, what you (the teacher) are doing."

After both lessons, her peers wrote personalized evaluations of the activity concerning what they liked and what could have been better about the lesson. The feedback Natalia received validated her efforts. While there were multiple points made about the behavior of the entire class, there were a number of very encouraging comments towards Natalia. For example:

> Thank you for this project this was an amazing and awesome project...You are a very nice person to everybody in the class. We are very lucky to have you in our class. If we did not have you in our class we would not be able to even do this very fun project.

Natalia was very engaged with the evaluation sheets (which included the students' names), and in many cases she wrote back to her peers thanking them for their affirmations. The widespread show of support from her peers empowered Natalia to start participating more and being more engaged with her classmates during other activities for the rest of the year. She also gained more confidence for dealing with disruptive behaviors and began implementing established classroom management strategies (e.g., separating disruptive students, asking them to write their names on the board, and talking with them individually during group activities).

Carlos. Carlos' first project was a language arts lesson based on researching information about automobiles and then organizing the main ideas to do a class presentation. These activities aligned with his home interests involving mechanics and his collection of toy cars. During the development process, Carlos indicated that he wanted his classmates to research the following categories: engine type, production of the car, where to find parts, and how the car was designed. He also emphasized including the following types of cars: Lamborghini, Mustang, Porsche, Mercedes, BMW, RAM truck, and Camaro. Carlos decided that the best way to start his lesson was to follow Natalia's idea of creating a graphic organizer.

In addition to categories for what the students had learned and still wanted to learn, Carlos included a different box for 'what kids already knew' so that students could 'tell' him what they already knew about the car he assigned to each group. This demonstrates Carlos' scholastic funds of knowledge for organizing information, as well as his intuitive perceptions about how personal funds of knowledge influence his peers' understanding of the text. Carlos went to the library during lunch and collected a variety of resources for his peers to use, and he provided each group with pictures of their automobiles. He also brought his own collection of toy cars from home to create a display for his peers and help them identify the features that they were researching. He had the students do research on the required categories, and then facilitated group presentations in front of the class.

Carlos' second project was a science lesson on volcanoes that involved creating a classroom volcano. Although this topic was not related to specific activities of interest that we noted during the home visit, it does fit with his funds of knowledge about nature, his connection to the land where he lives, and his interest in historical processes. Moreover, Carlos drew heavily on his scholastic funds of knowledge for this particular project. In our discussion on classroom management and allocation of resources, Carlos decided to put his classmates in groups of three or four students, with a maximum of six total groups. He also asked for time to prepare a model volcano at home, specifically one that he could create with his father. While brainstorming, Carlos went online and found a homemade recipe for

the volcano shell. After demonstrating the development of his volcano to his peers, Carlos assigned the students to create their own volcano and had them document their experiences in their science experiment notebooks following the pre-established class inquiry structure: 1) inquiry and predictions about the topic; 2) materials necessary for the experiment; 3) procedures for the experiment; 4) observations; and 5) conclusions.

To implement the lesson, Carlos' father and sister came to the classroom to help him present his model volcano. His father talked about how rewarding it was to create the volcano as a family. With the help of his sister and father, Carlos presented concepts on plate tectonics and covered various curiosities and facts about volcanoes. On the following day, Carlos facilitated the experiment with his peers, ensuring that they documented the process according to his instructions.

Carlos' evaluations. Carlos also included some interesting comments that reflect his level of motivation. For example, he reported that "it is hard to be a teacher," though he pointed out that he "liked being a leader." Whereas in the first project he focused on difficulties with classroom management, his comments about his second lesson showed appreciation for being in a leadership position. Also, when asked to describe his classmates' participation, he pointed out that "when my father came, it was fun to see the kids with him." It is likely that his increased awareness of being a leader in the second project is related to having his family involved in the development and presentation of the lesson. This reinforces Au's (1993) claim that "[h]ome-school partnerships based on exchanging information can help parents and teachers form positive and powerful relationships, and enable schools and families to see parent involvement as a shared responsibility" (p. 89). From the student's perspective, the teacher–parent collaboration highlighted here "demonstrates the mutual interest of the teacher and the parents in the student's learning and well-being as well as the teacher's deep interest in the student" (Redding, 2013, p. 9).

The peer evaluations also included some interesting trends. Although classroom management surfaced as

a common topic, the students provided some insightful comments on the pedagogical aspects of Carlos' approach. For example, one student provided her likes and dislikes: "I also like that we had folders and KLW [already Know, Learned, still Want to learn] sheets. I didn't like [that] we didn't get to share to the 1st graders or 2nd graders."

In addition to the students' perspectives on the way Carlos' designed his lesson on volcanoes, one student commented on the presentation involving his family members. Specifically, this student wrote, "When we did the project, it reminded me of when your father was there." Considering that the students did their volcanoes over a week after Carlos presented his volcano with his father and sister, this is a powerful example of how the involvement of students' parents (and siblings, in this case) in classroom activities can have a lasting effect on other students in the class too.

Lasting Effects on Natalia and Carlos

After Carlos and Natalia completed their peer-teaching projects based on personalized learning and funds of knowledge, there was an increase in their academic progress and a noticeable shift in their engagement during subsequent lessons. Both students made personal growth throughout the process. Natalia gained significant self-confidence and Carlos developed a meta-perspective of the teaching process. Whereas Natalia used to remain very quiet and timid when interacting with her peers, she began to see herself as a leader in the classroom because of her pioneering efforts of starting the student-directed projects. She became more vocal during group activities, and now she is always willing to come up in front of class to present her work. Carlos, on the other hand, has become more focused during activities and has started to produce more written text on his assignments. Carlos has also gained a better perspective for the overall process of teaching and is more aware of the instructional components of certain strategies (e.g., student groupings, graphic organizers, note taking).

As a final point of data collection, exit interviews were conducted with both students to gain their insights into the overall process (from the home

visits to teaching the lessons). When reflecting on the home visit, both students explained that they were excited to have a teacher come to their house. Carlos reported that it was the first time anyone had visited, and Natalia said it was the "best time somebody visited from school" (i.e., since home visits are usually conducted for remediation purposes). Considering Carlos' negative experiences with his previous schools and teachers, we are hopeful that the home visit helped him view teachers in a different way. He also commented on how preparing the lessons helped him focus better—another area in which he has previously experienced challenges.

Furthermore, considering Natalia's diagnosed communication "difficulties," her comment that she feels "more comfortable talking to the class now because it is nice to be talking to them about my project," suggests that this process has helped her confidence while interacting with her classmates. Even though their interview responses were brief, they are very revelatory of how this type of approach to engaging ELL students directly affects their investment in the schooling process. Although on the outset of this project, Carlos' and Natalia's difficulties in school contributed to the reason for having them participate, at no time during the process was their participation discussed in terms of these issues (i.e., Natalia's reservation during interpersonal discussions, and Carlos' difficulties focusing). That said, both students came to their own conclusions about how their participation in this project related to these points. Finally, having maintained contact with both students during the following school year, we were particularly encouraged by their continued enthusiasm in school and (self reported) continued academic progress.

> **By empowering ELL students as classroom leaders and honoring the wealth of cultural capital they bring to school every day, teachers can counter the hegemony of academic and linguistic standardization that continues to marginalize culturally diverse students and communities in U.S. schools.**

Discussion

Previous studies have been conducted on the difference between motivation and engagement in classroom activities (cf. Guthrie & Wigfield, 2000). Here, we have described how both motivation and engagement are affected by student involvement and personalized learning strategies when students are given the opportunity to draw on their scholastic funds of knowledge to design their own lessons and, in turn, how this impacts their investment in their education. The success of this strategy can be attributed to a variety of factors. Integrating Carlos' and Natalia's background experiences contributed to their motivation in the preparation and production of their lessons. The activities were meaningful to them because they were based on their literacy practices and experiences outside of school (Hornberger, 2003; McCarty, 2005; Moje et al., 2008; Ngaka & Masagazi Masaazi, 2015; Zentella, 2005).

Having the students design and implement the activities prompted them to be more engaged during the lesson and caused them to be more productive and invested in the nuanced academic components of the assignments. The funds of knowledge data we collected provided insight into the students' interest in academic content (e.g., the students' literacy patterns at home and their interest in science) as compared to drawing on preselected textbook-based activities. Next, getting to know the parents through the home visits increased communication about school and their child's progress (via email, phone calls, and parent conference participation). In Carlos' case, this even resulted in his family participating in class activities (both at home and at school).

Additionally, although the focus here has been on two particular students, an increase in the overall class motivation and engagement was evident by the

growing interest from other students who subsequently solicited permission to conduct their own lessons based on Carlos' and Natalia's models. Angela created an official proposal that students had to fill out before they could develop lessons to present to the class. In total, 13 additional students submitted a proposal (over half of the class). Interestingly, the additional students who conducted lessons applied the same types of strategies for teaching their classmates (e.g., graphic organizers for documenting research and using poster presentations to display findings). That said, additional scholastic funds of knowledge surfaced in the other students' lessons (e.g., using digital photographs, graphing, and storytelling). As Redding (2013) points out, "[m]aking learning interesting rather than merely relevant is the real challenge for teachers" (p. 10). We believe that this discussion has demonstrated how to make learning both relevant and interesting for all students, not just ELLs.

Considering the academic difficulties facing ELL students and the volatile history of educational language policies in the US (Johnson, 2009), this project provides specific methods for tapping into language-minority students' background experiences and incorporating those experiences into the overall teaching process. Whereas drawing on the students' funds of knowledge is widely accepted, actual methods for integrating this approach into classroom practice are not as commonly discussed due to the personalized attention required to students' home lives (Zentella, 2005). Our strategy extends the positive effects of doing home visits to collect information on the students' funds of knowledge by actually demonstrating how to integrate those skills in the classroom, as well as how to use that information to have students design their own academic lessons and activities.

This resonates with the views on both individualizing the students' literacy engagement (Cummins, 2011) as well as the sociocultural approaches to literacy development (Moje et al., 2008). By using familiar literacy practices to accomplish meaningful interactions in academic settings, students become more invested in furthering their school-based literacy skills. Additionally, as we have described here, involving students in designing and implementing classroom activities created a school environment where they were more invested in the overall learning process (i.e., not just completing an assignment). Also, including the students' families in the interview process helped strengthen home — school avenues of communication and increased authentic parent engagement (Epstein, 2009).

Conclusion

Integrating students' out-of-school funds of knowledge into classroom practices is a powerful tool for supporting all students—but even more so for those from traditionally marginalized populations. Moreover, we contend that personalized learning techniques are enhanced when teachers draw on their students' scholastic funds of knowledge as part of the process. Although integrating ELL students' funds of knowledge into classroom practices is not a panacea for all academic challenges, it is powerful step towards leveling the historically accumulated sociocultural biases that continue to drive practices in mainstream American classrooms. By empowering ELL students as classroom leaders and honoring the wealth of cultural capital they bring to school every day, teachers can counter the hegemony of academic and linguistic standardization that continues to marginalize culturally diverse students and communities in U.S. schools.

We believe the approach taken here espouses this philosophy and has significant implications for the schooling of language-minority students. We encourage teacher preparation programs and professional development facilitators to expand on this approach to ELL education by creatively applying it with students from various grade levels, cultural identities, and language proficiency backgrounds. As successful applications of this approach proliferate within teacher preparation programs and professional development contexts, educators will become more aware of the accessibility of personalized learning techniques and the value of integrating their students into lesson development and implementation to promote meaningful instruction.

References

Andrews, J., & Yee, C.Y. (2006). Children's 'funds of knowledge' and their real life   activities: Two minority ethnic children learning in out-of-school contexts in the UK. *Educational Review, 58*(4), 435-449.

Au, K. (1993). *Literacy instruction in multicultural settings.* Belmont, CA: Wadsworth.

Auerbach, S. (Ed.) (2012). *School leadership for authentic family and community partnerships.* New York, NY: Routledge.

Chen, C.T., Kyle, D.W., & McIntyre, E. (2008). Helping teachers work effectively with English language learners and their families. *The School Community Journal, 18*(1), 7-20.

Cremin, T., Mottram, M., Collins, F., Powell, S., & Drury, R. (2012). Building communities: Teachers researching literacy lives. *Improving Schools, 15*(2), 101-115.

Cummins, J. (2011). Literacy engagement. *Reading Teacher, 65*(2), 142-146.

Dornyei, Z., & Ushioda, E. (2011). *Teaching and researching motivation.* Harlow, UK: Longman.

Dworin, J.E. (2006). The family stories project: Using funds of knowledge for writing. *International Reading Association, 59*(6), 510-520.

Epstein, J.L. (2009). School, family, and community partnerships: Caring for the children we share. In J.L. Epstein (Ed.), *School, family, and community partnerships* (pp. 9-30).Thousand Oaks, CA: Corwin Press.

Faltis, C.J. (2001). *Joinfostering: Teaching and learning in multilingual classrooms.* Columbus, OH: Merrill Prentice Hall.

Ghiaciuc, S., McIntyre, E., Kyle, D., & Sutherland, M. (2006). Conflicts and challenges of educators', students' and families' education goals. *Journal of Urban Learning, Teaching, and Research, 2*, 1-19.

Ginsberg, M.B. (2007). Lessons at the kitchen table. *Educational Leadership, 64*(6), 56-61.

González, N., Moll, L.C., & Amanti, C. (Eds.) (2005). *Funds of knowledge: Theorizing practices in households, communities, and classrooms.* Mahwah, NJ: Lawrence Erlbaum Associates.

Guthrie, J.T., & Wigfield, A. (2000). Engagement and motivation in reading. In M.L. Kamil, P.B. Mosenthal, P.D. Pearson & R. Barr (Eds.), *Handbook of reading research: Volume III* (pp. 403-418). Mahwah, NJ: Lawrence Erlbaum Associates.

Henderson, D., & Zipin, L. (2010). Bringing clay to life: Developing student literacy throughclay animation artwork to tell life-based stories. In B. Prosser, B. Lucas, & A. Reid (Eds.), *Connecting lives and learning: Renewing pedagogy in the middle years* (pp. 20-39). Adelaide, South Australia: Wakefield Press.

Hogg, L. (2011). Funds of knowledge: An investigation of coherence within the literature. Teaching and *Teacher Education, 27*, 666-677.

Hornberger, N.H. (2003). Multilingual language policies and the continua of biliteracy: An ecological approach. In N.H. Hornberger (Ed.), *Continua of biliteracy: An ecological framework for educational policy,*

research, and practice in multilingual settings (pp. 315-339). Buffalo, NY: Multilingual Matters LTD.

Hughes, M., & Pollard, A. (2006). Home—school knowledge exchange in context. *Educational Review, 58*(4), 385-395.

Hugo Lopez, M., & Velasco, G. (2011). *Childhood poverty among Hispanics sets record, leads nation.* Pew Research: Hispanic Trends Project. Retrieved from http://www.pewhispanic.org/2011/09/28/childhood-poverty-among-hispanics-sets-record-leads-nation/

Johnson, E.J. (2009). (Re)defining freedom of speech: Language policy, education, and linguistic rights in the United States. *Journal of Applied Language Studies, 3*(1), 2-23.

Johnson, E.J. (2011a). (Re)producing linguistic hierarchies in the United States: Language ideologies of function and form in public schools. *International Journal of Linguistics, 3*(1), E12.

Johnson, E.J. (2011b). Peerlingual education: A socioeducational reaction to structured English immersion. *Journal of Latinos and Education, 10*(2), 127-145.

Johnson, E.J. (2014a). From the classroom to the living room: Eroding academic inequities through home visits. *Journal of School Leadership, 24*(2), 357-385.

Johnson, E.J. (2014b). (Re)Categorizing language-minority literacies in restrictive educational contexts. International *Multilingual Research Journal, 8*(3), 167-188.

Jones, S. (2004). Living poverty and literacy learning: Sanctioning topics of students' lives. *Language Arts, 81*(6), 461-469.

Kyle, D.W. (2011). Families' goals, school involvement, and children's academic achievement: A follow-up study thirteen years later. *The School Community Journal, 21*(2), 9-24.

Kyle, D.W., McIntyry, E., Miller, K.B., & Moore, G.H. (2005). Family connections: A basis for teacher reflection and instructional improvement. *The School Community Journal, 15*(1), 15-28.

Kurtyka, F. (2010). "The expression of wise others": Using students' views of academic discourse to talk about social justice. *Teaching English in the Two-Year College, 38*(1), 47-60.

Lopez, G.R., Scribner, J.D., & Mahitivanichcha, K. (2001). Redefining parental involvement: Lessons from high-performing migrant-impacted schools. *American Educational Research Journal, 38*(2), 253-288.

McCarty, T.L. (Ed.) (2005). *Language, literacy, and power in schooling.* Mahwah, NJ: Lawrence Erlbaum Associates.

Meltzer, J., & Hamann, E. T. (2004). *Meeting the literacy development needs of adolescent English language learners through content area learning, Part one: Focus on motivation and engagement.* Providence, RI: The Education Alliance at Brown University.

Meyer, J.A., & Mann, M.B. (2006). Teachers' perceptions of the benefits of home visits for early elementary children. *Early Childhood Education Journal, 34*(1), 93-97.

Migrant Policy Institute. (2014). *Largest U.S. immigrant groups over time, 1960-present*. Retrieved from
http://www.migrationpolicy.org/programs/data-hub/charts/largest-immigrant-groups-over-time

Moje, E.B., Overby, M., Tysvaer, N., & Morris, K. (2008). The complex world of adolescent literacy: Myths, motivations, and mysteries. *Harvard Educational Review, 78*(1), 107-154.

Moll, L., Amanti, C., Neff, D., & González, N. (2005). Funds of knowledge for teaching: Using a qualitative approach to connect homes and classrooms. In N. González, L. Moll & C. Amanti (Eds.), *Funds of knowledge: Theorizing practices in households, communities, and classrooms* (pp. 71-87). New York, NY: Routledge.

Ngaka, W., & Masagazi Masaazi, F. (2015). Participatory literacy learning in an African context: Perspectives from Ombaderuku Primary School in the Arua District, Uganda. *Journal of Language & Literacy Education, 11*(1), 88-105.

National Center for Education Statistics. (2014a). *Projections of education statistics to 2022.* Retrieved from
http://nces.ed.gov/pubs2014/2014051.pdf

National Center for Education Statistics. (2014b). *The condition of education: Status dropout rates.* Retrieved from http://nces.ed.gov/programs/coe/indicator_coj.asp

No Child Left Behind. (2001a). *Elementary and secondary education, part A—Improving basic programs operated by local educational agencies: SEC. 1116, b.3.A.viii.* Retrieved from
www2.ed.gov/policy/elsec/leg/esea02/pg2.html#sec1116

No Child Left Behind. (2001b). *Part I: Non-regulatory guidance on implementation of Title III state formula grant program: SEC. I-1).* Retrieved from http://www2.ed.gov/programs/sfgp/nrgcomp.html#paren

National Education Association. (2015). *Hispanics: Education issues.* Retrieved from
http://www.nea.org/home/HispanicsEducation%20Issues.htm

Norton, B. (1995). Social identity, investment, and language learning. *TESOL Quarterly, 29*(1), 9-31.

Office of Superintendent of Public Instruction. (2015). *Washington state report card.* Retrieved from http://reportcard.ospi.k12.wa.us/summary.aspx?groupLevel=District&schoolId=1&reportLevel=State&year=2013-14

Office of Superintendent of Public Instruction. (2013). *Washington English language proficiency assessment.* Retrieved from http://www.k12.wa.us/assessment/EL/

Olivos, E.M. (2012). Authentic engagement with bicultural parents and communities. In S. Auerbach (Ed.), *School leadership for authentic family and community partnerships* (pp. 98-114). New York, NY: Routledge.

Olmedo, I.M. (2004). Raising transnational issues in a multicultural curriculum project. *Urban Education, 39*(3), 241-265.

Pérez, B. (2004). Creating a classroom community for literacy. In B. Perez (Ed.), *Sociocultural contexts of language and literacy* (pp. 309-338). Mahwah, NJ: Lawrence Erlbaum Associates.

Redding, S. (2013). *Through the student's eyes: A perspective on personalized learning and practice guide for teachers.* Center on Innovations in Learning, Temple University, PA.

Redding, S. (2014a). *Personal competency: A framework for building students' capacity to learn. Center on Innovations in Learning.* Temple University, Philadelphia, PA.

Redding, S. (2014b*). Personal competencies in personalized learning.* Center on Innovations in Learning. Temple University, Philadelphia, PA.

Rodriguez, G.M. (2013). Power and agency in education: Exploring the pedagogical dimensions of funds of knowledge. *Review of Research in Education, 37*(1), 87-120.

Santiago, D.A., Galdeano, E.C., & Taylor, M. (2015). *The condition of Latinos in Education: 2015 factbook.* Excelencia in Education. Retrieved from http://www.edexcelencia.org/research/2015-factbook

Teague, B.L., Smith, P.H., & Jimenez, R.T. (2010). Learning to write in a Mexican school. *Journal of Language and Literacy Education, 6*(1), 1-19.

Trumbull, E., & Rothstein-Fisch, C. (2011). The intersection of culture and achievement motivation. *The School Community Journal, 21*(2), 25-53.

Trumbull, E., Rothstein-Fisch, C., & Hernandez, E. (2003). Parent involvement — According to whose values? *School Community Journal, 13*(2), 45-72.

Upadhyay, B.R. (2005). Using students' lived experiences in an urban science classroom: An elementary school teacher's thinking. *Science Education, 90*(1), 94-110.

U.S. Department of Education. (2015). *ED data express: Data about elementary & secondary schools in the U.S.: National snapshot.* Retrieved from http://eddataexpress.ed.gov/state-report.cfm/state/US/

Varelas, M., & Pappas, C.C. (2006). Intertexutality in read-alouds of integrated science-literacy units in urban primary classrooms: Opportunities for development of thought and language. *Cognition and Instruction, 24*(2), 211-259.

Wolcott, H.F. (2008). *Ethnography: A way of seeing.* New York, NY: Alta Mira Press.

Zentella, A.C. (Ed.). (2005). *Building on strengths: Language and literacy in Latino families and communities.* New York, NY: Teachers College Press.

Zipin, L. (2009). Dark funds of knowledge, deep funds of pedagogy: Exploring boundaries between lifeworlds and schools. *Discourse: Studies in the Cultural Politics of Education, 30*(3), 317-331.