

The Role of Heuristic Knowledge in Vietnamese American Students' Success at a Midwestern Community College

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This qualitative research study investigated the development of heuristic knowledge and its role in the academic and social journeys of five Vietnamese American students enrolled at a community college located in the American Midwest. The participants were interviewed in depth to understand their "lived experiences" while attending the community college. Data were collected, analyzed, and interpreted using a narrative inquiry approach. The interpretation led to a composite image of the students' experiences expressed in the form of a virtual photo album. Research findings provided guidance for future research and advice for community college practitioners.

Individuals, institutions, and the country are becoming more and more attuned to the immigration of people from foreign countries into the United States. The foci of attention concerning immigration are often the east and west coasts of the nation, although many regions of the United States are changing demographically. Nationally, the minority student population enrolled at postsecondary institutions increased from 1990 to 2001; while the population of White students remained relatively stable (U.S. Dept. of Education Report, 2004). From 1990 to 2001, the number of Asian American students (including Vietnamese American students) increased by 78% in all postsecondary institutions and by 93% in public 2-year colleges (U.S. Dept. of Education Report, 2004). The authors have observed these changes first hand. One of these changes has been an increase in the Vietnamese American student population.

This study focused on how Vietnamese American students at Midwestern Community College (pseudonym) acquired and used heuristic knowledge to navigate administrative and student learning processes. Heuristic knowledge is knowledge gained by individuals through experience and not through

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textbooks (Padilla, 1991). Learners acquire heuristic knowledge more rapidly with the assistance of a mentor, advisor, friend, counselor, or other individual who has experience with the local environment. This knowledge facilitates social and academic integration and allows students to overcome barriers impeding their learning in the classroom.

The participants in the study shared their experiences at MWCC with our primary researcher and interviewer, Cynthia Bottrell. A narrative approach allowed this researcher to listen to the stories of the participants, deconstruct them, and then reconstruct them to develop research findings (Clinchy, 2003; Pinnegar & Daynes, 2007). All authors then assisted in developing an interpretive framework that provided the means to express the details and complexities of how these students acquired, used, and relied on heuristic knowledge as they progressed through MWCC. The synthesis of the varied authorial perspectives provided a framework that allowed for the expression of the participants' stories and experiences while also preserving their identity and integrity.

Literature Review

The literature review for this research focused on two topics. These were: (a) challenges facing Asian American college students and (b) heuristic knowledge.

Challenges Facing Asian American Students

Cornerstone works in the literature concerning the challenges encountered by Asian American students emphasized three themes (Kiang, 1992; Rhoads, Lee, & Yamada, 2002; Teranishi, 2002). These were the Myth of the Model Minority, the unique needs of subgroup populations, and the racial challenges faced by Asian American students.

The research literature (Kiang, 1992; Rhoads et al., 2002; Teranishi, 2002) indicated that the image created by the Myth was not consistent with the majority of Asian Americans, especially for the subgroups who are the most recent immigrants. This would include Vietnamese Americans, Cambodians, and Hmong. Nevertheless, Suzuki (1993) observed that the Myth of the Model Minority was accepted at most higher education institutions and Asian American students in these subgroups suffered from the stereotype.

More recently, Suzuki (2002) pondered whether there have been changes in the model minority stereotype of Asian Americans. Regrettably, Suzuki found continuing concerns. The most significant was that some institutional policies and practices still ignore the unique needs and problems encountered by Asian American students, especially those in underrepresented groups such as Southeast Asian populations.

Teranishi (2002) noted that the treatment of Asian Americans as a homogeneous group has concealed the regional heterogeneity of the group

throughout the United States. Teranishi contends that in a region with a high concentration of one subgroup, the specific social, cultural, immigrant, and ethnic status of members of that group should be considered rather than the perceived need of the larger homogeneous group. These factors create educational needs that are unique to that subgroup. Teranishi observed that the heterogeneity of the Asian American group “should be considered in educational research and policy if we are to truly capture the reality of who Asian Americans are in our nation of changing faces” (p. 21). A failure to acknowledge the critical aspects of subgroup populations can pose a significant challenge to their success, especially as students in higher education.

Heuristic Knowledge

Padilla’s (1991, 1997) research concerning various groups of minority students and their experiences at college dominates the literature on heuristic knowledge. Padilla’s work is grounded in Tinto’s (1975) Model of Student Departure as well as in the work of Harmon and King (1985) regarding expert systems. Padilla (1991) defined heuristic knowledge as one component of compiled knowledge. The other component is theoretical knowledge. As students progress through an institution, theoretical knowledge and heuristic knowledge are combined or synthesized. Padilla found that the prompt acquisition of heuristic knowledge is important and can help students succeed at their new college. This knowledge is important because it facilitates social and academic integration.

Heuristic knowledge is knowledge acquired through experience. This means learners must be present in a situation where they may acquire unmediated or hands-on learning. Learners acquire heuristic knowledge more rapidly with the assistance of a mentor, advisor, friend, counselor, or other individual who has experience with the local situation. Padilla (1991) described the “expert student” (p. 84) as one who can acquire enough heuristic knowledge to overcome locally defined problems on campus early in their college experience. Once heuristic knowledge is acquired, students can focus on acquiring the theoretical knowledge needed to advance and ultimately graduate from the institution. Padilla also noted that the localization of heuristic knowledge prevents students from applying it beyond their institutional boundaries. For example, a student who has gained heuristic knowledge concerning the steps involved in securing financial aid at one institution, may find these steps to be of limited value in securing financial aid at a second institution.

Padilla, Trevino, Gonzales, and Trevino (1997) developed a model that identified four categories of barriers that are overcome by successful students. The four categories were (a) discontinuity barriers, (b) lack-of-nurturing barriers, (c) lack-of-presence barriers, and (d) resource barriers. Padilla et al. indicated that local models explaining how successful students overcome barriers could be used to influence policy and practice at particular institutions.

However, localized models could not be used to develop generalizations regarding minority student success. Thus, the challenge is to know when and how to apply local knowledge to support local change.

The common theme of this literature confirms the importance of acquiring heuristic knowledge and doing so early in students' college careers. Padilla asserted that students who have immigrated into the United States must gain heuristic knowledge from sources other than their parents. Often much of this knowledge is gained after arriving on campus and not beforehand (Padilla, 1991).

Although much of Padilla's research has been at a large diverse university, only one study (Padilla et al., 1997) specifically involved Asian American students. In this particular study, the participants' specific ethnic identities were not known. Accordingly, the study of heuristic knowledge of Vietnamese American students is substantially incomplete and this constitutes a significant gap in the literature.

Methodology

This qualitative study focused on a small population of Vietnamese American students at MWCC. The purpose of the study was to discover, through an inductive approach, the details of their experiences at MWCC and the role of heuristic knowledge in their experiences. MWCC is the largest of three colleges in Heartland Community College District (HCCD, a pseudonym) in a Midwestern state. Approximately 5,000 students attend MWCC each semester. MWCC has the largest concentration of Vietnamese American students in the district.

The target population included Vietnamese American degree-seeking students in their second year at MWCC, or those who had recently left the college. It was posited that these individuals would have more educational, social, and administrative (registration, advising, etc.) experiences than first year students. The Director of the MWCC English as a Second Language (ESL) program assisted in the identification of potential participants and functioned as a gatekeeper (Creswell, 1998). We used purposeful sampling to identify five students who were then interviewed (Patton, 2002). The selected students were all immigrants from Vietnam and their ages ranged from 21 to 46 years.

Data collection was accomplished through private individual interviews. Each participant was interviewed twice, with each interview ranging from 45 to 90 minutes. Each interview was structured around nine open-ended interview questions (see Appendix A). As a form of member checking, participants were asked to review their hard copy transcripts to identify and correct errors or omissions. They were also invited to add to the transcript to make data collection as complete as possible. Questions arising as a result of transcription of the interview tape were also addressed at this time.

In the analysis of the data, a series of matrices, as discussed by Miles and Huberman (1994), were created (see Appendix B). The first set of matrices was composed of six Within Case Matrices. The six Within Case Matrices were then merged into a Cross Case Emergent theme matrix. This emergent theme matrix allowed for comparison of data and gave rise to five theme groupings. The final step in this process was to present the analysis of the data in a narrative form to create an understanding of the experience of being a Vietnamese American student at MWCC. This resulted in the presentation of five stories. These stories gave rise to the construction of a virtual photo album as the form of interpretation.

As the research interviews were conducted, it was necessary to be especially cognizant of ethical concerns. These concerns were of paramount importance since narrative inquiry requires that participants open up their lives and share their thoughts and feelings with the interviewer. Chase (1996) indicates that narrative inquiry renders the participants more vulnerable than other forms of qualitative research. Perceptions of power relationships will affect the quality of the interview and may be based on race, age, gender, ethnicity, and knowledge (Daiute & Fine, 2003; Yow, 1994). The interview process may cause the participants to view their relations with other people differently from before; this may have either positive or negative effects on those relationships (Merriam, 1998).

Throughout the process, measures of trustworthiness were employed. The measures of trustworthiness for this project included: member checking through correspondence, multiple reflections on the field notes, articulation and clarification of researcher bias, peer review, and a complete description of the research study (Creswell, 2003).

Research Findings

Each participant had a unique story to tell. The primary purpose of the interviews was to learn about heuristic knowledge as part of the participants' college experiences. Since heuristic knowledge is gained through experience, the participants' experiences were recorded as stories as a form of narrative inquiry. The following discussion presents excerpts of the five stories. Pseudonyms are used to protect the identity of the participants.

Van's story

Van had two main sources of heuristic knowledge while at MWCC. One source was the Vietnamese American community. In particular, Van relied on Vietnamese American friends who were MWCC graduates. He noted, "We have a big alliance of Vietnamese at Midwestern, they already graduate. So, the Vietnamese group helped to work my way through Midwestern. It take me one semester to learn, then I know the process." The ESL Director was Van's second main source of heuristic knowledge. The Director helped Van navigate

the processes at MWCC and taught him English. Van identified learning English as his primary success at MWCC. Achieving better English language skills allowed Van to navigate his way through MWCC. "So, I tend to be more relaxed now," he claimed.

Van was active in the local Vietnamese American population; this provided support for him but also created some cultural isolation because socially he did not move out of that arena very often. His American friends were for studying; his Vietnamese friends were for socializing.

Van had feelings of being lost on the campus. Van felt like an outsider at MWCC because of the absence of Vietnamese American employees and activities. Van said, "For me, in the school Midwestern Community College, from my viewpoint is, I don't see any Vietnamese employees there." As a result, he left the college to form his social connections. Van identified barriers he encountered in his experiences at MWCC. Two of these were language and the lack of Vietnamese American employees at MWCC. For Van the challenge of communication was critical. He said, "I think that language that's the most."

Howie's story

When Howie first arrived in the United States, he relied on Vietnamese American friends for transportation to and from his first jobs and then to and from the college. This discussion revealed how the local Vietnamese American population is committed to helping one another, especially the new members of the community. Howie explained, "We communicate and a person get you to school and guy at school you can tell him pick you up and what time go home." He also relied on Vietnamese American friends who were students at MWCC to show him how to navigate the college processes. "Vietnamese friends told me how to do things. They had been in the area and students here. And they were students at the same time or before."

The ESL Director was the most important MWCC staff member to work with Howie. Howie noted that this individual gives assistance while students are in ESL classes and then when students are ready to take classes outside of ESL. As Howie's English skills improved and he gained more self-confidence, he was less dependent on the ESL Director and developed his own strategies for being successful at MWCC.

In general, Howie's heuristic knowledge came from sources that were external to MWCC or sources that he developed as he progressed through the college. His relationship with the ESL Director was his only ongoing interaction with college employees. Howie's ability to form his own connections demonstrated his desire for independence and his resiliency both as a student and as an individual.

Like Van, Howie identified learning English as both a barrier and success. In regard to his own language challenges, Howie discussed that he may have trouble understanding someone the first time he meets them. He said, "It is a different culture and not my first language, and at first, I cannot understand you. At first, I had trouble when I go to McDonald's and order. They wouldn't understand what I say... I do better now." In terms of English skills and self-confidence, Howie said, "Now I can talk here by myself. Language has provided a lot more freedom to be able to go places. I can read a newspaper and now if you say something wrong, I know it. I have self-confidence."

In summary, Howie relied on his own developed sources of heuristic knowledge to navigate the bureaucracy at MWCC. Howie was unaware of any support services for Vietnamese American students. Howie would have liked to see Vietnamese American employees at MWCC. Even though Howie had friends to talk to at MWCC, he appeared to be an outsider on the campus.

Ba's story

Ba was well assimilated into the American culture. He struggled with language, although he had more family support than the other participants. Since Ba's family was established in the United States before he was, they were an important source of heuristic knowledge. Ba's sister was his primary helper and a critical source of heuristic knowledge when he first arrived. Ba also explained how many Vietnamese Americans go to MWCC for the first time with a Vietnamese American friend who knows the college. The friend helps them through admissions, financial aid, and registration. Ba used his own experience as an example, stating, "When I come here, somebody before me, the Vietnamese, they told me if you want to go to MWCC, how to do it." Furthermore, Ba observed, once they are on campus, Vietnamese American students will ask other Vietnamese American students for assistance. Like Van and Howie, Ba relied on the ESL Director for advice when he first arrived at MWCC and as he progressed in his studies.

Ba identified two areas that were barriers to him in his experiences at MWCC. They were English language skills and terminology in subjects with which he was not familiar. When he discussed these barriers, he stated, "When I go MWCC, I think, I am nurse already, easy for me when go into Nursing program. But very difficult. Because English is a barrier first for me. If you don't understand, how can the life here better?"

Ba identified the primary successes that he experienced at MWCC. These were learning English and learning new subjects to help him understand and appreciate the world better. These experiences allowed Ba to assimilate into the local community. In explaining his successes, Ba stated, "English. You feel confident when you improve your English. You understand the world more."

When you go to school again and you know a language, you can hear on the radio, TV, the news everything.”

Yumiko's story

Yumiko was the youngest participant and may have benefited from arriving in the United States as a teenager. She was also the only woman whose story contributed to this study. She came to the U.S. as a young person ready to learn new things. She looked at the world each day with fresh and excited eyes. She was also the only participant with a Chinese ethnic background even though she was born in Vietnam. She used her diverse cultural background to her advantage. She learned, explored, and assimilated into the American culture while at the same time preserving her Vietnamese and Chinese culture. She saw herself living in three worlds, and she enjoyed that, rather than seeing it as a burden.

Yumiko's first exposure to MWCC occurred when the ESL Director visited her high school to administer the TOEFL test. He was her first source of heuristic knowledge. She noted, “When I come to MWCC, he was my helper to find out how to register. He helped me to find out which class is good for me and help get on the right track.” She relied on the ESL Director for questions about college processes, and stated, “He answers all the questions that I have and he gives me some good advice.”

Yumiko's other sources of heuristic knowledge were two Vietnamese friends. One was a former MWCC student. The other friend was a current student. They showed her around and told her how to navigate the system. Yumiko recalled, “I want to go but I don't know how to do it. But lucky because I have a friend and he is also going to MWCC too, so he tried to help me out on the paperwork and how you take a class and how the financial aid works.” Yumiko was able to create her own heuristic knowledge. Yumiko knew what she wanted, and she searched for the people who could provide her with the correct answers and guidance concerning her next steps and her overall goals.

Yumiko identified only one barrier to her in her experiences at MWCC. Again, this was language. She stated, “I think the first thing would be my English. The first time I got here, I couldn't understand anything because the accent is totally different. It take time.”

Yumiko also indicated that students may display some racial bias, but she also stated this was due more to their lack of understanding of foreign students. Once they got to know Yumiko, the feelings of racial and/or cultural isolation disappeared. Yumiko declined to characterize this experience as a barrier to her success in college.

Two of Yumiko's successes at MWCC were improving her English language skills and gaining knowledge to be successful in the future. Yumiko

summarized these successes by saying, “I’ve learned a lot that I don’t know before. I feel that I am learning things that will allow me to be successful and allow me to transfer my credit.”

Pham’s story

Pham was a very charismatic young man majoring in auto-body repair. He was 24 years old at the time of this study and had been in the US since he was 15. Pham came to the United States with his parents and a younger sister. He explained, “I came here with my whole family to the United States. We come here for freedom.” After high school, Pham wanted to go to college, but he had family obligations and he also needed money to live. He also needed to work full-time in order to go to college. He explained, “I been working. Actually I got to pay for my tuition. Right now working at body shop.”

Pham, like Yumiko, is living in more than one world culturally. When asked about how he sees himself culturally, he replied that he sees himself as, “Vietnamese American – I have to remember my country.” Pham identified English as something that he needed to improve on when he arrived at MWCC. He said, “English may be a barrier. I think learn English. That’s hard.” When asked about his successes at MWCC, after thinking a while, he stated that he had developed his English language skills while enrolled at MWCC.

Pham encountered two very good sources of heuristic knowledge early in his academic career. First, he met the ESL Director while attending high school. The Director provided Pham with information about how to attend MWCC. When Pham arrived at MWCC, the ESL Director became his advisor. This experience is similar to those described by Yumiko and Ba. Pham recalled his first experiences at MWCC: “I went there by myself. I asked a friend how to get there but then went and read the forms myself. Mr. Smith, [the ESL Director] I met with him first thing and then he helped me register.”

Second, Pham moved directly into a career-technology program that is very structured. There were only two instructors in the program and the curriculum and course schedule was very structured. Pham was given clear instructions on when to register, as well as information on other college processes, and he observed, “When in auto body, the instructors help you with scheduling classes. Most of the auto body students fill out their registration cards at the same time in class. So that was a help to us.” As a result, the college provided Pham with the sources of heuristic knowledge without his needing to seek them out.

When compared to other participants in this study Pham was an individual who managed his way through MWCC with the most limited sources of heuristic knowledge. He was a young person with a lot of responsibilities – work, family, and school. It appeared that by chance, he was afforded two very good sources of heuristic knowledge. This heuristic knowledge provided Pham with the information needed to navigate his way through MWCC.

Interpretation

Narrative inquiry authorizes a researcher (a) to gather data in the form of stories told by their participants and (b) to analyze data by breaking stories down into constituent parts that give rise to meaning. The researcher then becomes the author of a new story that describes the participants' experiences in a manner that gives new voice and meaning to the participants. These voices are combined with that of the author to construct the final story. Clinchy (2003) described this process as taking constructed experiences, deconstructing them, and then reconstructing them to achieve the final product.

The reconstructed stories of the five participants reported in this study are concerned with only a short segment of their lives; this segment of time is the time they spent at MWCC. Their stories are limited to their experience at that institution and are not intended to tell the complete life story of any participant. As the stories were reconstructed and interpreted, a wide range of applications used in narrative research were considered (Pinnegar & Daynes, 2007). It was determined that information participants shared about their experiences while at MWCC could be best understood and characterized by describing a series of imaginary photographs. These photographs frame our narrative interpretation and serve as a literary device to explain the most salient aspects of the participants' lives at MWCC.

These imaginary snapshots then allowed for the construction of an imaginary "photo album" that contains photos that might have been received from each participant as a means of expressing their stories. Thus, the imaginary photo album is how the interpretations of the participants' stories and experiences were organized. This device is not a co-creation. But it tells the participants' stories, providing them with a voice, utilizing the authors' voices as the vehicle. The album contains the five students' photos and a final "composite" photo, a blending of the other photos in the album. The final form of the imaginary photo album was emergent and not a part of the original design for the research.

Van's photos

Van's photos provide insight into the people who Van socialized with while at MWCC and while away from campus. The only photo with Vietnamese American students is one that he took in the computer lab. A small group of Vietnamese American students are sitting in a group in the lab. They are not with American students. He also took a picture while he was in his calculus class. There is one African American male student in the class. The others were Caucasians.

Van asked a friend to take his picture. The photo shows Van as a Vietnamese American living in two worlds. In one world, we see some fatigue around his eyes. This is due in part to the Vietnamese portion of his identity. Van works hard to provide for his family members who live with him: his mother, his siblings, and his niece. Another source of his fatigue is his inability to find a full-time job in his field of computers. He wonders if it is due to racism and a reluctance to hire Vietnamese Americans. In the other world, we see Van as an American. This is revealed by the way he dresses. He wants to meet other Americans so he can learn how to study better and to improve his English language skills. He indicates that his American friends are for studying and his Vietnamese American friends are for socializing, giving rise to feelings of cultural isolation.

Howie's photos

Howie was a student in the construction management program. His first photo is a picture of himself along with his classmates at a celebration of the completion of a house the students built. Howie is standing in front of the house with seven classmates and building partners. Howie is the only Vietnamese American student. All of the others are Caucasians. There are six males and one female student in the group. Another photo shows Howie with three other students. They are talking but Howie seems confused. A later photo shows Howie looking away and off in the distance, obviously disconnected and not listening to his friends.

Howie tries to associate with Americans as friends but finds that he does not understand their jokes and other comments and thus he feels like an outsider. Howie views himself as Vietnamese, although he would like to assimilate and fit into the American culture. Howie's sources of heuristic knowledge came primarily from sources external to the college, although he did have a supportive relationship with the ESL Director. His external sources were local Vietnamese American individuals who had attended MWCC and could tell him how to navigate the system. The ESL Director was an early internal source, and Howie also formed connections with American students in his classes, although the connection was primarily for help with college processes and not for socializing. These also did not appear to be long-term connections.

Ba's photos

Ba is a person who likes to observe the world around him, so he was excited about taking photographs of his world while attending MWCC. His first photo is of his family at his sister's birthday party. His father, sister, brother, and nephew are all present. Ba said this is an important picture because these family members had been his support network when he came to the United States and they had helped him become successful at MWCC. He has another picture of his friends at the party. It is a picture of six Vietnamese American men. Two of these friends accompanied Ba the first time he went to MWCC. His family and friends have been important sources of heuristic knowledge for Ba.

Ba's last set of pictures from MWCC was taken in some of the student services areas. He took pictures of another Vietnamese American student talking to staff members in the registration, financial aid, and other student service areas. The photos show the frustration Ba feels Vietnamese American students encounter. The staff members are clearly having trouble understanding what the Vietnamese American student wants or needs.

Yumiko's photos

Yumiko views herself as Chinese rather than Vietnamese or American. She has both American and Vietnamese American friends. Most of her Vietnamese American friends are for socializing and her American friends are for studying and practicing English. All of the students in her pictures of MWCC classes are Caucasian and of traditional college age. Yumiko is aware of cultural differences and also racial differences among her fellow students. Yumiko mentioned that in some cases American students do not talk to her and she feels some racial tension when in classes for the first time. She wonders if this is due to overt racism or because American students do not understand people from other cultures.

Yumiko also took a picture of the ESL Director at MWCC. He was her original advisor and first connection to MWCC when he visited her local high school. He is still her advisor. She is comfortable with his style. She noted that he understands foreign students and different cultures. Yumiko relied on the ESL Director as she developed her heuristic knowledge to navigate the system when she first arrived at MWCC and she still relies on him for advice.

Pham's photos

Pham's photos from his time at MWCC are limited. He needs to leave MWCC right after classes end to go home to care for his younger brother. He does not have time to socialize with other students in his program. He does not meet other Vietnamese American students due to the location of his auto body classes on campus. As a result, Pham does not think many Vietnamese American students attend MWCC and he does not have many social

connections to the campus. His friendships are found outside of the college and specifically within the local Vietnamese American community.

As a result, Pham only has pictures of his classmates in the auto body lab. They are all males and mostly younger students. Since they are in lab, they are all in very casual clothing for working on the cars. Since the instructors in the program handle registration for students, Pham does not have any pictures of other areas of the college. He does not need to go to many other campus areas. He only has pictures of the auto body lab and an adjacent classroom. Pham relied on Vietnamese American friends to get him started at MWCC and then had help from the ESL Director and his program faculty members. These were his sources of heuristic knowledge.

Composite photo

While each of the participants' photos is unique, there are underlying themes that run through them. In the composite photo, five individuals are present and there are commonalities among them. There are superficial physical commonalities and there are deeper and more important commonalities that emerged as part of the interview process. From a macro perspective, the composite photo shows a group of students who were academically successful at MWCC, yet they often did not make social connections. As a result they sometimes felt like "outsiders." They smiled and were able to associate with people to acquire the knowledge that they wanted to gain, but yet they also appear to have been traveling alone on their journeys. From a micro perspective, a variety of factors may give rise to this feeling of not "belonging" in the MWCC college community. The interviews indicated two factors contributed to this feeling of not belonging; racial isolation and cultural isolation.

Racial isolation was identified and described by four of the five participants. Yumiko said, "Some students, like they have a little, like racial thinking. You're not American. You're not White. Usually, White people have a racial thing. Just the White people." Yumiko and Ba felt that they had overcome racism as they progressed through MWCC. They both expressed that as students got to know them better, they felt more accepted into the classroom environment. Ba stated, "they look you very strange, you know, usually I talk with them. In the future they know you more. They open with you more." Yumiko added, "They are laughing at your English. I think it just takes time. It takes time to get used to it. It is really hard to communicate with a different language, different culture." Yumiko and Ba both felt that in the future, they will be able to overcome racism, whether explicit or implicit in the actions of others. Howie and Van are still struggling with racism. Van noted, "It doesn't matter what country you from – they only understand their views. People don't tend to understand Vietnamese or Asian people."

Four of the participants appeared to be wrestling with feelings of cultural isolation; Van, Howie, Ba, and Pham. These four students explained that they find social outlets away from MWCC. Each of these individuals indicated that their American friends were for studying and that their Vietnamese American friends were for socializing. As Van indicated, "I have Vietnamese friends, but not for study." Van and Pham, along with Howie, are holding on to their Vietnamese ethnic identity more than the other two participants. Each of them self-identified as Vietnamese or Vietnamese American rather than American. As Pham mentioned, "I have to remember my country."

In answer to the research question, Vietnamese American students at MWCC appeared to develop heuristic knowledge primarily through their Vietnamese American connections and the ESL Director. However, they also developed heuristic knowledge through interactions with their American classmates and instructors. As the participants explained their experiences at MWCC, their comments indicated they had more academic interactions than social interactions. They indicated they felt like outsiders and that they would like to see more Vietnamese American or Asian employees and possibly a Vietnamese Student Association on campus. Their inability to fully integrate socially on campus appeared to play a role in their development of heuristic knowledge. They appeared to be sensitive to the cultural differences on campus and chose to stay within the comfort zone of the local Vietnamese American community and their Vietnamese American friends.

Summary of Findings

Each of the five participants developed his or her personal level and form of heuristic knowledge. Each utilized this knowledge to navigate the processes of MWCC. All five participants developed a relationship with the ESL Director. This person provided a first point of contact and connection with the college. The Director provided guidance and assistance to participants as they developed their heuristic knowledge at MWCC. Additionally, each of the five participants developed heuristic knowledge through interactions with individuals in the local Vietnamese American population, both on-campus and off-campus.

This research also revealed that each of the students faced the barriers posited by Padilla (1997). Tables B3 through B6 identify the various barriers and indicate when participants succeeded in overcoming various aspects of them either partially or completely. Some of the participants have overcome the barriers completely, some partially, and some are still wrestling with one or more of the barriers. For example, as indicated in Table B5, four of the five participants were struggling with cultural isolation one of the five factors identified as constituting Padilla's Lack of Presence barrier. Yumiko, the sole female participant, was also the only participant who appeared to have overcome this aspect of the lack of Presence Barrier.

It should be noted that Padilla's studies focused primarily on minority students who were English language speakers. This study involved students who faced the challenge of learning English while also addressing Padilla's barriers. As a result, our findings add another dimension to Padilla's study of minority students and how they develop and use heuristic knowledge.

Recommendations for Future Research

Opportunities for both qualitative and quantitative studies exist for community colleges enrolling students from the Vietnamese American community or other Asian populations. Qualitative studies could include phenomenological research examining the relationship between Vietnamese American students and American students. Our participants were all first generation Vietnamese Americans. A comparison could be made between the experiences of first generation and second generation Vietnamese American students in community colleges. Do second generation Vietnamese Americans have different experiences at community colleges? Narrative inquiry could be utilized to understand the life stories of other Asian immigrants (i.e. Cambodia, Laos) at community colleges. Do they have life stories similar to those of Vietnamese American students?

Additionally, this study reported findings from only one female student. Coincidentally, Yumiko was also the only participant who succeeded in overcoming the cultural isolation aspect of the Lack of Presence barrier. This raises the question of whether gender is a consideration in developing heuristic knowledge and, if so, the conditions under which gender influences this process. Further quantitative and qualitative research on this particular issue could improve the experiences of students and assist community colleges in developing programs to serve their Asian American students.

Finally, since the local Vietnamese American community had a very influential role in the experience of Vietnamese American students at MWCC, a quantitative survey could be utilized to determine how the community college is perceived by the Vietnamese American community and in what ways it does or does not meet their needs. A qualitative study could be used to follow-up and expand on the results of the survey.

Conclusion

The primary purpose of this study was to uncover and understand the sources of heuristic knowledge for selected Vietnamese American students enrolled at a comprehensive Midwestern community college. Interviews with five participants revealed that the primary sources of heuristic knowledge were the MWCC ESL Director and their connections with other Vietnamese - Americans. Secondary sources of heuristic knowledge were their American classmates and MWCC instructors. Our review of the literature confirmed such findings had not been previously reported.

This study also provided the opportunity for the voices of a silent campus community to be heard. The five participants were invited to tell their stories about their experiences at Midwestern Community College. These stories help us understand how heuristic knowledge contributes to the success of Vietnamese American college students. We found that, as these students develop heuristic knowledge, they are similar to other minority groups such as African Americans, Latinos, and Native Americans because they encounter the four barrier categories outlined by Padilla. In addition, the students interviewed for this study were first required to overcome the additional barrier of language. These findings support Teranishi's (2002) contention that in a region with a high concentration of one subgroup, the specific social, cultural, immigrant, and ethnic status of members of that group should be considered because these factors create educational needs that are unique to that subgroup.

References

- Chase, S. E. (1996). Personal vulnerability and interpretive authority in narrative research. In Josselson, R. (Ed.). *Ethics and Process in the Narrative Study of Lives. Volume 4*. Thousand Oaks, CA: Sage.
- Clinchy, B. M. (2003). An epistemological approach to the teaching of narrative research. In Josselson, R., Lieblich, A., & McAdams, D.P. (Eds.). *Up close and personal: The teaching and learning of narrative research*. Washington, DC: American Psychological Association.
- Creswell, J. W. (1998). *Qualitative inquiry and research design: Choosing among five traditions*. Thousand Oaks, CA: Sage.
- Creswell, J. W. (2003). *Research design: Qualitative, quantitative, and mixed methods approaches*, (2nd ed.). Thousand Oaks, CA: Sage.
- Dauite, C., & Fine, M., (2003). Researchers as protagonists in teaching and learning qualitative research. In Josselson, R., Lieblich, A., & McAdams, D.P. (Eds.). *Up close and personal: The teaching and learning of narrative research*. Washington, DC: American Psychological Association.
- Harmon, P., & King, D. (1985). *Expert systems*. New York: John Wiley & Sons.
- Kiang, P. N. (1992). Issues of curriculum and community for first-generation Asian Americans in college. In Zwerling, L. S. & London, H., (eds.), *First-generation students: Confronting the cultural issues*. (pp. 5-11). *New Directions for Community Colleges*, No. 80, winter. San Francisco: Jossey-Bass.
- Merriam, S. B. (1998). *Qualitative research and case study applications in education – revised and expanded*. San Francisco: Jossey-Bass.
- Miles, M. B., & Huberman, A.M. (1994). *Qualitative data analysis: An expanded sourcebook*. Second edition. California: Sage.

- Padilla, R.V. (1991). Assessing heuristic knowledge to enhance college students' success. In Keller, G., Deneen, J., & Magallan, R. (eds.), *Assessment and access: Hispanics in higher education*. Albany: State University of New York Press.
- Padilla, R.V., Trevino, J., Gonzales, K., & Trevino, J. (1997). Developing local models of minority student success in college. *Journal of College Student Development*, 38(2), 125-135.
- Pinnegar, S., & Daynes, J.G. (2007). Locating narrative historically: Thematics in the turn to narrative. In Clandinin, D.J. (ed.) *Handbook of narrative inquiry: Mapping a methodology*. California: Sage.
- Rhoads, R. A., Lee, J. J., & Yamada, M. (2002). Panethnicity and collective action among Asian American students: A qualitative case study. *Journal of College Student Development*, 43(6), 876-891.
- Riessman, C. K. (1993). *Narrative analysis*. California: Sage.
- Suzuki, B. H. (1993). Higher education issues in the Asian American community. In *Minorities in Higher Education*, pgs. 258-285. Washington, D.C.: ACE/Oryx Press.
- Suzuki, B. H. (2002). Revisiting the model minority stereotype: Implications for student affairs practice and higher education. In McEwen, M.K., Kodama, C.M., Alvarez, A.N., Lee, S. & Liang, C.T.H. (eds.). *Working with Asian American college students* (p. 21-32). *New Directions for Student Services*, no 97. San Francisco: Jossey-Bass.
- Teranishi, R. (2002). The myth of the super minority: Misconceptions about Asian Americans. *The College Board Review*, 195, 17-21.
- Tinto, V. (1975). Drop out from higher education: A theoretical synthesis of recent research. *Review of Educational Research*, 45(1), 89-125.
- U.S. Department of Education, (2004). <http://www.used.gov>, acquired November, 2004.
- Yow, V. R. (1994). *Recording oral history: A practical guide for social scientists*. Thousand Oaks, CA: Sage.

Appendix A

Interview Guide

1. What is your primary purpose for attending Midwestern Community College (MWCC)?
2. Please describe your experiences in the classroom at MWCC.
3. Please describe your experiences outside the classroom at MWCC.
4. What has been your experience with your own peers (same race, other minority students, and non-minority students)?
5. What has been your experience with the professional staff (advising, student services, business office, financial aid, and library) and administrators at MWCC?
6. What kinds of activities are you involved in when you are not in classes?
7. What does it mean to you to be Vietnamese-American (male or female)? What is your understanding of racism/prejudice? Have you had any experiences at MWCC that you would attribute to racism/prejudice?
8. What have been your greatest barriers and challenges? How have you overcome those barriers and challenges?
9. What have been your greatest successes at MWCC?

Appendix B

Table B1 - Profiles of Participants – Personal and Cultural

Name (pseudonym)	Gender	Attended college in Vietnam?	Highest grade-level obtained by mother	Highest grade-level obtained by father	Number and ages of siblings
Van	Male	No	6	5	4 (30-45)
Howie	Male	Yes	7	7	4 (30, 24, 20, 18)
Yumiko	Female	No	High School (12)	High School (12)	2 (29, 24)
Ba	Male	Yes	Elementary school	Middle school	5 (50, 48, 46, 44, 42)
Pham	Male	No	High School	High School	2 (13, 14)

Table B2 – Profiles of Participants – Related to Education at MWCC

Name (pseudonym)	Enrollment Status	Degree Major	Degree Sought/Transfer	Educational Status	Continuous enrollment at MWCC?
Van	Part-time	Computer Science	AAS, then transfer	Beyond third year	Yes
Howie	Full-time	Technical Studies (Construction Management), AAS	AAS, then transfer	Beyond third year	No, left for 2 years
Yumiko	Full-time	Undecided	AA. Transfer, Liberal Arts	2 nd year (completed 2 semesters)	Yes
Ba	Part-time	Nursing	AAS, Liberal Arts/Transfer	Beyond third year	Yes
Pham	Part-time	Auto Body Repair	AAS	Third year	No, left for 2 years

Table B3 – Discontinuity Barrier

Name (pseudonym)	Transition from Vietnam to US	Learning to be on your own	Difficulty coming to terms with the value of a job vs. value of education
Van	P	P	O
Howie	P	O	P
Yumiko	O	O	N/A
Ba	O	O	O
Pham	P	P	P

Note. O = Overcame barrier; P = barrier is still present; N/A = barrier was not an issue or challenge to student.

Appendix B (continued)

Table B4 – Lack of Nurturing Barrier

Name (pseudonym)	Lack of nurturing	Lack of family support and understanding	Lower expectations of student by faculty or staff	Lack of minority role models
Van	O	O	N/A	O
Howie	P	P	N/A	P
Yumiko	N/A	N/A	N/A	N/A
Ba	N/A	N/A	N/A	N/A
Pham	O	O	N/A	O

Note. O = Overcame barrier; P = barrier is still present; N/A = barrier was not an issue or challenge to student.

Table B5 - Lack of Presence Barrier

Name (Pseudonym)	Lack of minority issues or materials in the curriculum	Lack of visibility of minority support programs	Cultural isolation	Lack of minority role models or mentors	Racial isolation
Van	N/A	O	P	O	P
Howie	N/A	P	P	P	P
Yumiko	N/A	N/A	O	N/A	O
Ba	N/A	N/A	P	O	O
Pham	N/A	N/A	P	N/A	O

Note. O = Overcame barrier; P = barrier is still present; N/A = barrier was not an issue or challenge to student.

Table B6 – Resource Barrier

Name (pseudonym)	Lack of money	Financial aid system
Van	P	O
Howie	O	O
Yumiko	O	N/A
Ba	O	O
Pham	P	N/A

Note. O = Overcame barrier; P = barrier is still present; N/A = barrier was not an issue or challenge to student.