UC Merced Summer Bridge 2008 Summary Report

Background

Rationale for Program

Hopes of enhancing the college-going culture of students living within the San Joaquin Valley became embedded in the decision to situate the newest University of California campus in Merced. Before the university opened, the Central Valley was uniformly underrepresented among the UC System's student population. Since its opening in 2005, Central Valley residents' applications and admissions to UC campuses have increased markedly (41% and 45% respectively). Approximately one-third of UC Merced's entering freshmen have been Central Valley residents, a culturally-diverse and economically-depressed region of the state. Though the student population represents all areas of the state, a significant percentage of admitted freshmen during UC Merced's initial three years have consistently self-identified as English Language Learners or as having a language other than English in the home (48% in 2007)[1]. Additionally, many of the students are the first in their family to go to university (50% in 2007); this cohort of students often lack the experience or support network to assure their successful retention until graduation.

As a group, first-generation students contrast in several ways with their peers whose parents have bachelor's or advanced degrees. They are less likely to attend a four-year university, more likely to leave school before graduating, and more likely to need remedial classes in math and reading; the academic progress of these students as measured by number of credits earned over time may also be slower than their peers with a stronger family college-going tradition (Chen & Carroll, 2005). Parents' educational background also influences the rigor of

[1] All UC Merced statistics from UC Merced Office of Institutional Planning & Analysis, Fall 2007.

their students' high school coursework; these students were less likely to participate in higher-level math courses associated with successful college admissions. As may be expected then, advanced study in math at university lags behind that of peers whose parents have university degrees (Chen & Carroll, 2005; Choy, Horn, Nuñez, & Chen, 2000). One additional factor – lower socioeconomic status – adds to students' risk of transitioning successfully to the university environment. For 2007, 23% of UC Merced freshmen were categorized as from low-income backgrounds, creating additional burdens on the students' adjustments to university life including financial, social, and academic preparation challenges from having attended underfunded schools. These factors became obvious during UC Merced's inaugural semester when, compared to the other UC campuses, an increased percentage of at-risk freshmen completed their first semester in 2005 with a GPA of 2.0 or lower. More closely eleaborated issues experienced by the UC Merced students were documented in lower-division writing classes.

Surveys completed by Writing Program faculty and UC Merced students indicated that certain skills were lacking or underdeveloped. These skills included:

- Comprehending and analyzing academic texts
- Integrating effectively those texts into academic essays
- Thinking critically and deeply about a range of topics
- Participating effectively in discussions
- Presenting well
- Communicating well with instructors
- Managing time well
- Accessing university resources (e.g., library, tutorials)

These features were not limited to one group of students (i.e., not simply underrepresented students who became the target student population of the Summer Bridge program), but were characteristic of a broad segment of the UC Merced freshmen enrolled in writing classes. However, a combination of the research on the at-risk cohort and the practical experiences with the abilities of the UC Merced student body led to the development of the Summer Bridge curriculum funded by the Title V grant.

In the summer of 2007, the UC Merced Writing Program piloted its eight-week Summer Bridge program with nine students participating from the Merced County area high schools. The curriculum for the Summer Bridge pilot program (SB1) was designed, then, to help this group transition to the university discourse community by working on these specific skills deemed critical to success. The second year of the program (SB2) continued the focus of initiating students to the academic discourse community of the university, having some programmatic changes informed by the first year's experiences, yet maintaining the emphasis on meeting the academic needs of underrepresented students in the Central Valley.

Students' Educational Backgrounds

Initial efforts at recruitment for SB1 and SB2 were based on the University's mission to work with residents of the Central Valley, working to reverse the "brain drain" and low college-going rate of Central Valley youth. It is instructive, then, to note the English-Language Arts Standardized Test and Reporting (STAR) scores of high schools represented in the pilot year of Summer Bridge as listed in Table 1 below.

Table 1. 2007 Eleventh-Grade English-Language Arts STAR Scores (percentages) for Merced County High Schools Represented by Students Attending Summer Bridge 2007[2]

School	Advanced	Proficient	Basic	Less than Basic
California	17%	20%	24%	39%
Atwater	8%	21%	29%	42%
Delhi	9%	16%	31%	44%
Dos Palos	7%	20%	31%	42%
Golden Valley	11%	20%	29%	41%
Livingston	9%	23%	33%	36%
Merced	11%	20%	33%	35%

Although the recruitment of students for the second year expanded for reasons that will be described later, the academic achievement of those schools does not vary significantly from the schools that were within the initial target group. The number of schools represented by the 23 students participating in the second year of Summer Bridge (SB2) expanded from six to 12 and the counties from one to four. The STAR scores for the 12 high schools represented in SB2 can be found in Table 2.

Table 2. 2008 Eleventh-Grade English-Language Arts STAR Scores (percentages) for Merced County High Schools Represented by Students Attending Summer Bridge 2008[3]

High School	Advanced	Proficient	Basic	Less than Basic
California	16%	21%	26%	37%
Merced Co.	8%	19%	29%	44%
Buhach Colony	14%	25%	28%	33%
Delhi	3%	24%	42%	31%
Dos Palos	7%	24%	39%	30%
Golden Valley	9%	22%	29%	41%
Le Grand	5%	22%	42%	31%
Livingston	10%	27%	37%	26%
Merced High	12%	22%	33%	32%
Outside Merced				
Chowchilla (Madera Co.)	9%	26%	29%	35%
Madera North (Madera Co.)	8%	25%	32%	36%
Davis (Modesto, Stanislaus Co.)	11%	24%	32%	32%
Johansen (Modesto, Stanislaus Co.)	13%	26%	29%	31%
Wilson Charter (Alameda Co.)	11%	19%	47%	23%

[2] California Department of Education, http://star.cde.ca.gov/star2007 .
[3] California Department of Education, http://star.cde.ca.gov/star2008.

All students in SB1 came from backgrounds representing what some categorize as *Generation 1.5* students, which includes students who came to the U.S. at an early age or live in home or cultural enclaves where English is not the dominant language. They are generally educated in the U.S. K-12 systems, but finish their secondary education with varying degrees of proficiency in academic English and sometimes less familiarity with college-going traditions and expectations (Harklau, Losey, & Siegel, 1999; Roberge, 2002; Rumbaut & Ima, 1988). Generation 1.5 students may appear to be highly conversant in spoken English, especially when scaffolded with contextual cues. However, Crawford (1998) explains that five to seven years are needed to acquire the "complex, decontextualized academic language needed for success in the classroom." Mastery of this language, a hallmark academic discourse, is critical to academic literacy and mastery of content-area studies.

All SB1 students spoke Spanish in their homes, with one noting some use of English. Three of these students completed their K-12 careers without any language support; the other six had one year of ESL (2) or 4-5 years (4).

Of the 23 students who participated in the 2008 program, three speak only English at home and another two speak mostly English. Eleven of the remaining 18 speak exclusively or mainly another language at home (and so could be designated as Generation 1.5 students). The languages of these SB2 students include Hmong (2), Spanish (13), Tagalog (2), Urdu (1), and Vietnamese (2). Ten students participated in English as a Second Language or bilingual education classes during their K-12 career with five participating during their middle or high school career. More SB2 students were from families that had university-going traditions than the first year when all students were the first in their family to go to university. The preparation

for university of this group may have been stronger, as will be clearer when considering outreach efforts.

Pilot Year

The students of SB1 represented six high schools from Merced county: Atwater (1), Delhi (3), Dos Palos (3), Golden Valley (1), and Merced (1). They attended class four days a week for an average of four hours, completing the four-credit *Academic Writing* course, as well as courses focusing on reading and discussion, editing for academic writing, and academic vocabulary. Most students attended writing tutorials and were assigned peer mentors to help with the transition. Two students worked in a neighboring town, necessitating their leaving early every day, an action that caused them to miss tutorials and peer mentoring opportunities. These students were working between 25 and 35 hours each week. Another student failed to attend tutorials with regularity as the program proceeded. At the end of the term, all but one student advanced to the next writing course, the student who chose not to attend tutorials regularly. This student repeated WRI 01 and persisted at UC Merced as a full-time student through the full 2007-2008 Academic Year. At the end of that time, he had to withdraw because of an unacceptably low grade point average and extracurricular disciplinary action. One student who had struggled during SB1 (one of the two who was working) withdrew at the midpoint of the Fall 2007 semester, citing ongoing difficulty fulfilling university demands in light of family responsibilities. He indicated his intent to enroll in the local community college to become established academically in hopes of returning to UC Merced as a transfer student. One other student who had performed well and shown progress over the semester withdrew after the fall semester. Faculty members have been unable to determine whether this student has continued his education at another location. The remaining six students remain as full-time students for their

second year at UC Merced, a lower rate than the UC Merced trend of approximately 80%[4] for the Fall 2007 freshman cohort. The small size of the pilot group does not, however, allow for valid comparisons between their achievements and that of the general UC Merced student population.

Programmatic Changes for the Second Year

Upon completion of the pilot year, two areas of the SB1 program received special attention to determine ways of enhancing the learning experience for participants. The first area of focus was the actual curriculum. Changes outlined below were in response to student feedback, faculty reflection and feedback, and the progress of students over the course of the program. The second area of focus related to recruitment since the first year's efforts drew a much smaller group from the student population that the Writing Program and the Admissions Office felt would benefit from the course offerings.

Curricular Considerations

Coursework

SB1 students demonstrated a continued need to focus on reading comprehension at the conclusion of the program. The diagnostic administered at the beginning of the SB2 indicated that these students also needed to develop stronger reading comprehension skills. To meet this need, students received explicit instruction in critical reading skills more frequently throughout the second summer in the Reading and Discussion class (e.g., how to complete and use reading response journals; actively questioning the text before, while and after reading; summarizing the main points and supporting ideas of an essay for peers). Some of the academic readings required in the program had presented challenges to previous students (both during SB1 and during normal academic years) because of the text density, topic unfamiliarity, or vocabulary used. Yet

[4] Office of Institutional Planning and Analysis, http://ipa.ucmerced.edu/docs/Retention/First-Time%20Freshmen%20Retention%20Data.pdf

the readings are essential to help students develop topic familiarity to write and discuss effectively. For these reasons, faculty created reading guides to assist students in teasing out the meaning of those readings, facilitating both comprehension and discussion of those topics. Between SB1 and SB2, faculty determined that two or three readings did not contribute significantly to the topic development and support for student' essays or discussions. Removing those readings from the curriculum during SB2 gave more time for students to read and discuss the essays that were more substantive in nature and also represented more challenging content for students' comprehension and vocabulary level. This action was achieved, however, without compromising the total time spent on critical reading and thinking skill development. In other words, the final goal was to allow students to explore topics and readings more deeply, rather than superficially handling more readings.

In addition to support for reading and writing skills development, UC Merced's incoming freshmen have generally required additional work on their math skills. For example, approximately two-thirds of the first UC Merced freshman class was required to take writing and math courses that some categorize as remedial. This fact should not be surprising since the California 2008 STAR[5] scores indicate that only 11% of the state's students demonstrate proficiency or advanced proficiency in Algebra II, while 61% have below or far below basic skills. These factors contributed to the decision to add a math emphasis to the second year curriculum, providing opportunities for students to gain math literacy skills and recognize the level of math required in this academic context.

All incoming freshmen are supposed to take a Math placement test before entering UC Merced, although 299 did not do so. Of those who did complete the exam, more than half placed

[5] California Department of Education, http://star.cde.ca.gov/star2008.

into Math 5, the preparatory calculus math course. For those who did not complete the test, two received Advanced Placement credit[6] and the remaining 297 students were required to take the pre-calculus course. Thus, most of UC Merced freshmen are required to complete the pre-calculus course. For SB2 participants, three placed into the entry-level calculus course, eleven are enrolled in the pre-calculus course during fall, seven are not enrolled in a math course during fall term, and two are no longer enrolled at UC Merced. The math curriculum developed for Summer Bridge relied heavily on student-centered approaches to create an environment for the students to move beyond simple use of "templates" for problem-solving, but rather to facilitate their developing analytical skills that allowed them to investigate topics and concepts deeply.

The expected math trajectories of the students are not uniform, though their degree of analytical sophistication seemed consistent at the beginning of the program. For example, many were unable initially to create a graph with given data points, drawing to scale or, in some instances, knowing that a scale was needed. So the course focused on increasing math maturity, including basic graphing skills, terminology to describe and create those graphs, symbols used in math courses, and calculation of statistics. The students explored topics such as use and abuse of statistics in the language policy debates. They also identified inadequate and false assumptions present in texts and charts through small group discussions before being accountable in whole-class explications for the conclusions they had drawn. These steps allowed students to gain from the various skill levels and deductive processes of their peers, working with differing viewpoints and pairing math vocabulary with their everyday language use. These practices, then, aligned with similar pedagogical practices of the other three SB courses, demonstrated that certain skills

[6] Credits reported to UC Merced as of 9/18/08.

and habits of the mind cut across the disciplines and reinforced students' introduction to practices of an apprentice scholar.

Strengthening the curriculum required changes to the SB2 schedule. During SB1, students had courses from 9:30 a.m. until 3 p.m. For SB2, students had courses from 9 a.m. until 4 p.m. This extended time permitted the addition of the math component, without sacrificing instruction on academic writing (for which students receive 4 units of credit) or the other coursework focusing on building academic skills such as leading discussions, analyzing lecture practices, and growing academic vocabulary. Lengthening the instructional time also allowed the program to create a routine of students' contact with peer mentors and tutors.

Support Services and University Life

Strengthening academic skills was not the only goal of the program. Student learning outcomes included skill development that could only be met as students begin to make use of university resources outside the classroom. Students participating in SB1 experienced difficulty fulfilling coursework demands in part because most commuted between 45 minutes to an hour between the university and their homes. Their concentration on coursework was further aggravated by most working off-campus to meet individual and family financial needs. These travel and work demands also limited the opportunities students had to meet with tutors and mentors to gain the support offered by these two groups of upperclassmen. For these reasons, several significant changes occurred in SB2.

To assure that all students participated fully, each signed a contract stating their understanding of the program's purpose, its demands, and their obligation to participate fully in all aspects of the program. The UC Merced dorms were available for the first time during this summer and all but four students chose to live on campus, made possible through the Title V

grant funding. Thus, commuting time was eliminated for those living on campus. This modification allowed students to initiate individual tutorials outside of the scheduled in-class tutorials and to participate more actively with their mentors.

This housing change did not facilitate increased access for those students not living on campus, however. In contrast to SB1 where students had difficulty arranging contact with mentors, this year a group of mentors met with all participants for two hours each week for the first six weeks. During this time, mentors worked to build community among the students and mentors. They also facilitated discussions on how to transition well to the responsibilities of being a university student, including: managing time; handling stress while making specific adjustments to university life; and participating actively in university clubs and dorm life. This schedule change meant that all students had an opportunity to gain expertise from a wider number of mentors and to meet with a group of mentors more frequently than in SB1 because of that fixed twelve hours within the curriculum. Having that programmatic contact and living on campus offered new occasions to arrange one-on-one interactions with an assigned mentor that did not exist in SB1.

Outreach Efforts

A new university enters a pre-existing K-12 educational context with fairly established political alliances and patterns of interaction and communication. The Merced County educational establishment, where first recruitment efforts focused for both SB1 and SB2, has one high school district comprising five schools and three other school districts with only one high school in each. No single countywide entity coordinates the policies, activities, or interactions of these educational establishments. Finding an effective means of interacting with all these school districts has been complicated by county politics, personalities, and geographic distances.

For SB1, the largest district sent the fewest number of students. That was the case for this year, as well, in spite of meetings with school administrators, visits to high schools in the area, offers for tutors to help students complete UC Merced admissions applications, and numerous written communications with high school administrators, counselors and teachers. When it became clear that the SB2 enrollment would not be significantly different from the pilot year, the Admissions Office informed students within a three-county area of the program's offering. This letter provided the impetus for the enrollment of 15 of the SB2 students. While ensuring that enrollment increased, the student population served may have moved slightly from the initial group targeted – those who might be less well-prepared for university demands. Of the 23 students, the Admissions Office had indicated only seven of those were required to attend Summer Bridge for admissions to the university. That difference in students' backgrounds led faculty to presume that the past preparation and final accomplishments of these students would be demonstrably stronger than those of SB1. However, that was not the case. Their demonstrated skills and final grades were similar to the students of the pilot year, both of which seem to reflect the general student population of UC Merced. Since over 50% of the UC Merced student population qualify as first generation college students and more than 50% speak another language in their home, this result is not wholly surprising.

Early contacts have been initiated this academic year with Merced County high schools. UC Merced personnel (Summer Bridge faculty and Admissions Officers) are beginning to meet with faculty and counselors to assure they understand the program's intended participants, guidelines, and offerings. During these conversations, the emphasis has been on outreach to those students deemed especially at-risk or who would not even consider applying to university (first-generation and Generation 1.5). Additionally, outreach to interested parents and students

who would benefit is also planned for this fall. The UC Merced Admissions Office has agreed to establish firm deadlines for all students to apply for Summer Bridge, assuring that earlier outreach may occur to students whose profile indicates a need for intensive intervention in academic skills.

Results

Both programmatic and student assessment were integrated throughout the program and will continue as the students proceed through their academic careers at UC Merced. Direct assessment included diagnostic writing exams at the beginning and end of the program, as well as portfolio assessment in both the writing and math courses. Indirect assessment, primarily to inform current and future program development, includes student satisfaction surveys, group interviews, and student surveys in their next composition class.

Formal Assessment of Students

Writing

The students' successful completion of the Academic Writing course (the course for which they were receiving university credit) was evaluated by the same means as students enrolled during the conventional academic year, for both work completed in class and outside of class. Their final assessment entails portfolio submission comprising all work completed throughout the course, including numerous essays evidencing multiple stages of revision. Student work must exhibit increasing proficiency with the writing process and adherence to conventions of academic writing in the university context. In order to advance to the next required course, students must receive a cumulative grade of C or above in Academic Writing.

For this group of students, 16 of the 23 were able to successfully meet the WRI 01 course requirements, allowing them advance to Writing 10, the course required for graduation. Five of

the students achieved a grade of A, while nine earned a B, and two received a C. Only two of the seven students who earned a D were judged to need additional time to reach the outcomes of the academic writing course. These two students had fulfilled all assignments and demonstrated their effort to achieve; at the end of the program, they both acknowledged the need for more time to work on their reading and writing skills. The additional students who did not advance to WRI 10 failed to complete multiple assignments in all coursework, in spite of interventions by and consultations with their writing instructor and the program coordinator. Some attributed the difficulty to conflicts and obligations with their family, while others were struggling to adjust to the new environment and responsibilities of autonomy in this context. Ongoing evaluation of SB2 students' progress in their academic writing will be possible as they continue their academic career at UC Merced.

Math

As a requirement of successfully completing the Math 5 curriculum, students must take the *Gateway Exam*, which is a twenty-minute timed 12-item test of basic algebraic skills. Students are permitted unlimited practice opportunities outside of class, but must pass with a 10 out of 12 during one of the two proctored test administrations. Even though the SB students were not taking Math 5, they were allowed to take the Gateway Exam during the program, thereby allowing those who passed to commit their energy to other tasks during their Math 5 course. At the beginning, 2 of 23 passed and 6 of 23 passed at the end.

Students were also required to complete portfolios for the math component of the program. This work represented all their work, including quizzes, class notes, written responses to math concepts, and a group project wherein they demonstrated mastery of the ideas they had faced over the summer and the collaborative nature of their work. The submission of these

artifacts coincided with the submission of the WRI 01 portfolio, which may account for the haphazard or minimal assembly of some (3) or absence of other math portfolios (2). However, of the remaining 18 students who submitted portfolios attempting to follow the guidelines, 11 received a B or higher on their portfolios.

At the end of the program, there was a sense that students no longer viewed Math as a dichotomy of black or white, right or wrong. Students developed the habit of questioning the numerical and textual information after they had studied the concept of statistical abuse. However, the length of the course restricted the opportunities to have more than an introduction to some topics such as the graphs of exponentials and logarithms, with no concentrated emphasis on problems relating to these concepts. The students may have developed an increased level of vocabulary and familiarity with university-level math; the skills they did develop were not at a level that will make their Math 5 instruction seem redundant, however, since this course was not designed to replicate Math 5 coursework. The progress of all SB2 students within their math courses at UC Merced will be followed in the coming years.

Support Services

An additional goal of the program was to establish communities of support for these students in order to foster their success throughout their freshman year by continuing the interaction with mentors, tutors, and fellow Summer Bridge participants. To achieve that in part, these students were allowed to register for the Fall 08 semester before the program actually began, earlier than most other freshman. This allowed most of them to be enrolled as learning communities for either their writing or math course. For the fall semester, only three students have no other SB participant in either their math or writing class. For instance, nine of the students share one Math 5 section, seven are in one WRI 10 section, and six are in another WRI

10 section. By having fellow participants in these classes in the fall, they will be encouraged to continue the practices they began in the summer. The program may also be able to evaluate the impact of instruction on these students' progress as they experience common pedagogy.

Assessment of the Program

During the program, several assessment instruments were administered to determine students' abilities and the possible curricular adaptations that might be effected immediately and in subsequent years. A timed two-hour diagnostic exam was administered at the beginning and another at end of the program; these measured students' reading, discussion, and writing abilities. Students' confidence levels in various skills and their satisfaction with the program were also assessed through midcourse and end-of-course surveys and in focus group interviews. These interviews will continue over the next years, creating a snapshot of these students' transition to university. This year students also completed a self-assessment to show whether they felt they had achieved the stated programmatic student learning outcomes by the end.

Writing Assessment

Summer Bridge faculty evaluated the diagnostic essays completed at the beginning of the summer semester to note any trends that might instruct faculty on curricular needs. The basis of scoring was the holistic scoring method used to assess entrance exams completed for admission to the University of California (AWPE). Most essays demonstrated a lack of mastery in expected university-level academic writing abilities. As with previous freshmen, these students exhibited significant problems of comprehending the essay prompt or the associated reading. In most cases, the students were unable to adequately summarize or paraphrase the source texts. Frequently, the essays lacked a strong thesis, had development weak on analysis and evidence, or were organized in ways that lacked coherence. Command of language problems centered on

issues of vocabulary use, register (e.g., writing conversationally), and grammar or mechanics patterns that may be associated with second language learners (e.g., sentence fragments, word choice, verb tense shifts). This diagnostic, then, served to corroborate the previous needs assessment that formed the basis for the curriculum and show the need to focus on reading comprehension skills with these students.

Of the initial diagnostic essays, SB faculty felt that 80% did not meet the level of mastery expected at the university level. For the final diagnostic, the SB faculty judged that the unsatisfactory essays had dropped to 54%. Faculty noted more effective uses of support and stronger use of textual details in the final essays. Acceptable essays also demonstrated stronger thesis statements and more varied sentence structure. Even among several of the essays judged as not acceptable, students showed a stronger command of language and vocabulary, the ability to create more cohesive essays through signposting techniques, and more evidence creativity and voice than original diagnostics.

To assure that evaluation was not colored by familiarity with the students, Writing Program faculty not involved with Summer Bridge read the post-tests at the beginning of the Fall 2008 semester using the same holistic scoring rubric. These faculty evaluated 33% of the essays as satisfactory in the fall, the same percentage as the Summer Bridge faculty. Since Writing Program faculty did not read the pre-tests, gains in language command or topic development would not be as obvious to them as it had been to Summer Bridge faculty. Summer Bridge students completed another diagnostic exams in the first weeks of Fall 2008; of these essays, 66% were judged as satisfactory. It is doubtful that significant progress in writing skill occurred during the month between the end of summer and fall diagnostics. Rather, the apparent advances

may be related to students' being familiar with the task and knowing how to tackle it efficiently and successfully, in keeping with objectives of Summer Bridge.

Reading and Discussion Assessment

To address the perceived conflicts between the product-oriented writing diagnostic and process-oriented classroom practices, a Reading and Discussion (RAD) diagnostic was implemented. This activity provided another dimension for evaluating the students' ability to successfully integrate reading, discussion, and writing skills. The objectives to this approach include fostering better skill preparation for the timed-writing experience and connecting process-oriented classroom pedagogy to timed-writing situations.

The format of the RAD diagnostic mirrored tasks of active learning and collaboration students must fulfill in this academic community. They read, annotated, and summarized a text. After this reading, students responded in writing to a journal prompt about the reading and completed a grid that allowed them to tease out the relationship of ideas in the text. Finally, they discussed the reading and their grid with peers, expanding on their answers to the grid and their understanding of the topic. The final diagnostic followed this same procedure using a different text and related grid.

Several reading issues were common initially. Where students were instructed to summarize paragraphs, they simply wrote portions of the text as if it were their own thoughts – often writing what they had already underlined in the text. These "summaries" often did not demonstrate a grasp of the most important ideas of the paragraph, but represented either a secondary idea or a lack of comprehension of the main concept. In some cases, students' textual marking supported this problem, as they underlined text indiscriminately and extensively. In addition to a summary of paragraphs, the students were to respond personally to each portion of

the reading text. Their "response" was sometimes simplistic, off-topic, or absent. At other times, a misreading of the text was only apparent from the summary or the accompanying response. When the writing diagnostic was evaluated in the context of the reading diagnostic, some points were students' logic seemed stretched could be traced to their misunderstanding and comments on the reading diagnostic. This ability to synthesize multiple texts within one's essays is a desired outcome in academic writing, though one obviously in its rudimentary stages at the inception of summer bridge in most cases.

At the end of the summer, students continued to struggle to create a conventional summary for their RAD diagnostic. The incidence of quotation marks to indicate the author's actual words, however, was more apparent in the final diagnostic. Overall, students demonstrated a closer grasp of the reading's meaning with textual misunderstanding were less pronounced than in the initial diagnostic, discernible more clearly from the students' responses to the reading than from their summaries that still tended to repeat text rather than adhere to the actual conventions of textual summary.

A comparison of how students completed the reading synthesis grid singly and in groups yielded similar qualitative differences. For example, students appeared to respond in greater depth to the reading in the final diagnostic, as well as interact with their peers' contributions. At times, in fact, the students completed their grids with a synthesis of their peers' statements, rather than simply writing the comments down verbatim. In other words, the group discussions demonstrated that students had shared their insights, but also built on that foundation to produce cumulative insights unique from any a group member generated alone. Some students seemed to struggle to complete their individual observations; yet the notes from the group discussions indicate that even these students were active in sharing what understanding they did gain from

the reading. That fact may relate to sense of community that had been established over the summer and how students appeared to support peers' learning by the end of the program.

That ease was witnessed in the post-test as students moved more quickly into their discussion groups and began to query one another on their thoughts about the article, including clarifying ideas or defining vocabulary – a task not specifically included as part of the group grid completion responsibility. These behaviors were absent in the initial diagnostic, as was the effort shown by group members to assure that each member had a voice in the discussion. Their interactions, then, seemed to show an increased awareness of the value of collaboration in general and the importance of understanding academic vocabulary in particular. Undoubtedly, some of the ease with which the students began the activity related to their familiarity with one another. They were also more familiar with the expectations for the task's demands since collaboration in discussions and task completion had been a consistent responsibility over the summer.

Student Survey Responses

The surveys administered at the mid-point and conclusion of the program were completed online with Title V-funded laptops carted into the classroom. None of the teaching faculty was present, promoting more self-disclosure than may have been possible otherwise. The format of online completion may explain the relaxed nature of the quotes that are included as evidence below, transcribed exactly except where noted. However, the faculty preferred that students complete the evaluation fully rather than completing it with grammatical and formal accuracy.

Self-assessment and developing autonomy. Self-assessment and taking responsibility for one's learning is part of becoming a successful scholar. For that reason, all student surveys begin with questions to cause students to look at the degree to which they are demonstrating that

responsibility. Halfway through the program, over 90% claimed that they completed readings and homework on schedule. That percentage was 78% at the program's completion, which may mirror the pass rate to WRI 10 among these students. Since many faculty members complain about their poorly attended office hours and students' underutilizing this valuable resource, finding evidence of this behavior in students during the program was a desired outcome. At mid-program more than half responded that they "hardly ever" or only "occasionally" (19%) attended office hours. These self-reports contrast with the students' final assessment when 32% noted that they made use of instructors' office hours frequently or always, while almost half reported attending office hours "sometimes." Only 23% acknowledged that they hardly ever or occasionally went to office hours. It would seem that these students understood the value of accessing this additional time with faculty or that their instructors' persistence in scheduling out-of-class conferences helped forge this behavior. Only future interviews or surveys will demonstrate whether this change indicated the beginning of a scholarly habit.

At the start of the program over half of the students had very low or mixed feelings about participating in the program. By the middle of the program, this perception had changed to all but one rating their interest as high or very high, with that one admitting to mixed feelings and none as low or very low. This attitude of high or very high regard for the program remained until the final student survey. One student commented, "Well I was going to go to Canada… but then my parents forced me to go to Summer Bridge Program…now that I have spent enough time is one of the best things that ever happened to me in my life."

Growing confidence and academic skills. Midway through the program, students noted the wide range of skills they were developing and their integration into the community of students and faculty as a strong feature of the program. The gains they felt they were making in

their skills and adjustment to the university may have contributed to their view of the program's value. The students' narrative responses categorized their gains as related to (a.) academic achievement, (b.) interest and enjoyment, (c.) teaching methods, (d.) personal growth, and (e.) writing skill development. One commented on having "learned so much in these past 4 weeks then I had in the last 4 years at a high school english class." Most listed specific writing skills they were developing to a greater depth than in high school. One student noted a specific academic preparation problem, remarking, "when i enter the summer bridge i didn't know how to write an essay, how to give details, i just know how to write a five-paragraph essay." Others indicated their increasing understanding of what to expect from college life such as the student who said, "I really think that this program will not only help you with writing. Also adjusting to college life and be a better person."

Twelve of the students initially noted a lack of confidence in their math skills, especially those who did not take any math class their senior year. One student who had been "o.k. with math" noted that" the thought of college level math just scares every fiber in my body." In fact, more than 60% of the students rated their math confidence as only moderate or lower. At the end of the program, only 36% rated their confidence in math as moderate, and all others had higher levels of confidence. Students noted important support in learning to think analytically, use math to solve real-world problems, and communicate quantitative information. In the skills categories of "participating within a group" and "thinking analytically," students' confidence increased over 20%. One student noted having been "intimidated by numbers," but found that the instructor demystified "math talk so that I too could understand."

At the conclusion of the program, academic achievement remained the most common reason for students' positive perceptions of the program's value. One student commented, "At

the beginning of the course I did not know what to expect but now I fully understand what the program is about, to help us become better scholars." In the final survey, responses could be categorized as showing an increased awareness of how their participation had enhanced their academic preparation: "I have gain a lot from this experience. I know that I am prepare for the fall." Students increasingly noted the support they had received in all aspects of their writing skills, especially in analyzing readings, developing their topics, giving feedback to peers, and integrating evidence to support their positions. This support translated to 90% of the students rating their skills in WRI 01 as either "good" or "excellent," a 10% shift in confidence levels from the previous survey. Students also acknowledged developing the abilities to participate in and lead discussions, as well as maximize material covered in lectures. Although 81% rated their skills in participating actively in class discussions as "good" or "excellent," only 62% indicated that they actually do participate "often" or "always." This disconnect may indicate the reality of the stages of learning – *passively knowing* versus *actively doing*. The students' sense of satisfaction and achievement was evidenced when one said, "I learned a lot here I learned everything I should have learn in my 4 years of high school but in better ways. Not only did I learn academically but in a personal level it [changed] me a lot and I take things seriously and I work hard too." This student seemed also to recognize the broad nature of the programmatic goals – not simply building academic skills, but initiating the students into the disciplines of a scholarly mind and lifestyle.

Support of tutors and mentors. Students provided feedback on the role of tutors and mentors in their initiation to university life at both the middle of the program and at the end. Between the surveys, students demonstrated a 20-30% increase in confidence related to their adjustment to college life. One student expressed, "Peer Mentoring has been a great experience in getting to know how campus life is from people who have experienced it themselves. I've

learned that it is important to use your peers for help because you can't make it out here in college by yourself."

A minor decrease in expressed confidence occurred with the tutoring program (by 10%), including "understanding assignments," "developing topics," and "crafting an essay (writing and revision process)." Although most narrative responses were positive, other responses indicated confusion about the purpose of tutoring support. For example, "one thing that bugs me a lot is that when I seriously don't understand at all, it is time to tell me the answer so I can go SOMEWHERE and not get stuck in the same place going around and around." Overall, the decrease in satisfaction with tutoring support may involve increasing awareness of and frustration with outcomes (and the feeling that tutors can provide "answers" to withheld information).

Faculty Surveys

Faculty with teaching responsibility completed surveys at the conclusion of the program, focusing on the academic challenges and achievements witnessed among the students. Reading comprehension skills were mentioned by all reading and writing faculty as an ongoing challenge for the students. That continuing skill deficit meant that some responses to essay prompts had no effective or highly superficial evidence, a characteristic also observed during class discussions. The problems of comprehension also led to inaccurate summarizing of essays or an author's position when students created essays or participated in class discussions. Even in math, some students sought to memorize a formula and use it blindly, rather than demonstrating understanding and application of a concept.

Student Interviews

For SB2, interviews with students were conducted during Week 6 of the program and will resume again in late October. In SB1, interview were conducted halfway and again at the conclusion of the program. Because the findings were relatively similar, and SB1 students did not understand the need for a follow-up interview, SB2 students were notified that two

interviews – one during the program and later in the fall semester – will be standard. A Writing Program faculty member who was not involved in the instruction of the students conducted these interviews; while not having teaching responsibilities, she had nevertheless been involved with the students from the beginning of the program. They recognized her role as providing assessment of the program, rather than of their skills. Therefore, a non-threatening environment existed from the start and students saw their role as providing insights that would strengthen future Summer Bridge programs. Students participated in interviews outside of class time and in groups of six on average, with efforts made to have the same groups for both interviews.

Transitioning successfully to university entails recognizing that the university is not simply Grade 13 of high school. The students expressed awareness of significant differences between these educational contexts related to needed skills, students' roles, and available resources. These differences seem to have translated into their awareness of the skills they have developed and how those skills can transfer to future courses and educational goals, whether those goals include graduate school or a strong undergraduate emphasis.

The students seem now to see reading as a multi-stepped process that requires active engagement and reading to a greater depth than during high school. As one expressed this influence of reading at several levels, "[N]ow I do two readings, at least twice, skimming and then more – that's how I get more information than reading just for the first time. In college there will be a lot of reading, so this will help me a lot." Active discussions about course readings and materials are seen as enhancing their understanding and preparation for academic conversations in future courses. Students also recognize how understanding professors' expectations and analyzing their teaching styles can facilitate their successful learning. Students ranked their developing a process for writing and math highly. For writing, this included

identifying the audience, determining author intentions, and finding the controlling ideas within paragraphs and readings – especially as those skills relate to building evidence for their own discussions and writing. In math students had to be able to explain their solutions in narrative format, a skill that proved valuable even to those students proficient in math. It gave them a sense of its being "taught less like a set of rules but more about the learning process of math."

Gaining expertise in time management was a principle of personal responsibility that mentors, tutors, and faculty emphasized throughout the summer. One student put it more practically as, "Time management is so critical; you won't have teachers constantly on your back, this is your money – your time." Students recognize that teachers expect students to be responsible taking notes – "no extensions – no excuses." That responsibility also extends to understanding course material as indicated by a student's mentioning that "teachers will give you an assignment here and it is up to you to read it." Again, rather than being viewed as wholly negative, one said, "In college you are either responsible or you waste your opportunities." Peer mentors, through their personal support, resoundingly conveyed the reality that "people want you to succeed." The students saw teaching with technology as an adjunct to their success and a means of aiding their growing autonomy. "On-line resources provide support with keeping track of my materials and learning, helps with staying on task."

Self-Assessment

Learner autonomy rests in part on the ability to assess one's progress realistically. Knowledge of the ultimate goal is critical to that self-assessment. Although students were enrolled in four different classes, the desired student learning outcomes (SLOs) for the entire program were intertwined and often repeated across the courses and assignments. Students received explicit explanation of the SLOs in course syllabi, with specific tasks tied to those

outcomes. Students then had periodic reminders of the outcomes the instructors were targeting when specific assignments were introduced or being completed. At the conclusion of the program, students had the opportunity to indicate the outcomes they felt they had reached.

A comparison between the students' perception of their attainment and their final grades may indicate a need for continuing growth in understanding the skill set of this context and how to honestly look at one's progress – or for more instruction and explication of outcome definition and realization. The discrepancies between students' views of themselves and achievement could relate to (a.) their conducting this self-assessment on the final class period after a discussion of what they had gained from their initial academic skills, (b.) their not fully understanding how to measure whether they had met the SLOs, or (c.) their completing the assessment in public among their peers. For example, one student whose final grade was a D- indicated attainment of most of the outcomes while a student who received a C+ indicated she had fulfilled all the outcomes. Even for some outcomes that could be discretely measured (e.g., "Meet all assignment deadlines"), some students indicated completion when it could be clearly demonstrated to the contrary (i.e., they had not submitted several assignments on time or at all). This ability to understand expected course outcomes and accurately determine one's conformity to those outcomes should have increased attention in future years as a means of promoting student autonomy.

Overall Gains

The previous narrative details the specific student advances that the assessment instruments revealed, while Table 3 provides a snapshot of the key gains witnessed.

Table 3. Summary of Significant Gains among SB2 Students

Category	Gains
Writing Skills	▪ 70% of students advance to WRI 10 (Graduation Requirement) ▪ Improvement in pass rate on Final Diagnostic exam and Initial Diagnostic in WRI 10 ▪ Essays evidence stronger thesis statement, support, and vocabulary use
Math Skills	▪ Increase pass rate for *Gateway* exam ▪ Critical evaluation of statistics ▪ Confidence in math skills overall ▪ Collaboration on solving real-life problems ▪ Greater literacy in math skills and math vocabulary
Discussion & Participation	▪ Leadership of whole class discussions ▪ Substantial and easier participation in small group discussion ▪ Willingness to state personal opinions ▪ Ability to listen to peers and synthesize group ideas into representative whole ▪ Providing valuable support to peers learning through feedback and discussions
Study Skills & Adjustment to University Life	▪ Understanding of personal learning styles and strategies ▪ Recognition of difference between high school and university requirements for success ▪ Critical reading skills (e.g., annotating text, questioning positions, analyzing texts) ▪ More directed note-taking ▪ Evaluation of lecture styles and effects on student learning ▪ Improved time management skills ▪ Confidence in preparation for handling fall semester demands ▪ Ability to balance academic demands with increased freedom ▪ Assumption of financial responsibilities ▪ Sustained enthusiasm for learning in an intensive context
Use of Resources	▪ Relationship with mentors ▪ Use of library resources ▪ Awareness of available assistance from library staff ▪ Greater ease with university course management system ▪ Demonstrated proficiency in accessing online resources

An additional benefit of having the intensive focus of the Summer Bridge program was that a small group of faculty became deeply involved with a group of students. Through weekly

faculty meetings, progress of individual students and the whole group was noted and specific concerns could be addressed and troubleshooting proceed. A community developed that comprised faculty, students, and tutors, in particular; this closeness allowed students to be honest in their struggles with one another and with faculty. For example, when one student was told by her parents that they were declaring her independent, she was comfortable discussing the impact of this decision on her life and her future at UC Merced with fellow students and faculty. Although she was unsuccessful in finding financial assistance to bridge the gap in her tuition needs and was forced to enroll in night school in a neighboring community, she made her first steps in her new independent role through the encouragement of the Summer Bridge community. Two other students experienced stressful family conflicts during the program and another was struggling with administrative issues that threatened to derail his academic career. In each of these cases, the students had demonstrated a strong commitment to achieve from the start, achievement that began to suffer when their out-of-class difficulties intruded. However, each persisted throughout the program, in spite of the struggles to complete all the assignments to the level at which they were capable. And, although one has been forced because of financial issues to enroll in another educational context, she remains in contact with students and faculty from Summer Bridge. The remaining students are frequently seen walking around campus in groups, eating together, or simply cohabiting the same area while they work individually. So, this intangible – and unquantifiable – feature of community support may be one of the stronger gains made by the students.

Recommendations

Curriculum Enhancements

Although the sense of community was strong for those in the Summer Bridge program, it is unclear how well the students seek to form community with faculty other than those in the program. However, those mentoring relationships with faculty form a further catalyst for student retention and academic progress. The only contact students have with other UC Merced faculty during the program is through a video evaluation of lecture practices of various UC Merced professors as a means of recognizing how to effectively participate in classes of differing teaching practices. As an additional step in this assignment, students can interact with faculty who are on campus in the summer in one of several ways. If a variety of faculty can be enlisted, they could participate in a panel discussion informing students of the characteristics they believe lead to a successful university student. Because the range of expectations among faculty varies, these differences would provide avenues for fruitful discussions with the students of their responsibility for their learning experiences. Another option would be for students to go in groups of two to interview individual faculty and then report their findings to the class. Finally, students could e-mail faculty who are willing to participate to glean their perspective on academic success strategies.

Each of these options offers difficulties in scheduling because of the decreased presence of faculty on campus during the summer and the increased responsibilities of those remaining who are teaching or completing research over the shortened semester. However, if those obstacles can be overcome, the assignment extension will provide important outcomes, including: contact with a broader field of disciplinary representatives; consideration of appropriate form and register to address faculty as students formulate their questions before the

interaction; responsibility for accurately summarizing information for peers, if either of the two latter options are followed; and, another opportunity for self-assessment in evaluating professorial expectations and personal levels of achievement. This assignment will complicate an already full summer schedule. However, these interactions may help broaden the community support that students build among the SB participants, while also equipping them for more deliberate academic strategy building for future coursework.

For the first two years of the program, students have received only four units of credit for Academic Writing, the intensity of the program nullifying the possibility of their taking any other courses. This restriction means that students do not qualify for full-time status for financial aid considerations. As the program expands, funding through the Title V grant will not be sufficient to cover all financial obligations the students incur (tuition, and room and board) as it did this summer. If, however, students are taking six units of credit, they will be eligible for financial aid to cover those fees. As indicated earlier, many incoming freshmen can benefit from an emphasis on math, reading, and writing skills. Taking Math 5 and WRI 01 would achieve a full-time status (of eight units) and provide that additional support for these necessary academic skills; but, it would not permit the transition and time for skill building that the program seeks to establish.

One possible solution would be to offer two Bridge options – one for writing and another for math. In this format, both groups would take a one unit freshman seminar that focuses on general academic skills such as reading, note-taking, maximizing lectures, and participating in discussions. The additional 1-unit class will be dependent upon the student's track; those in the Academic Writing track will have a math skills intensive class while those in the Math track will have a writing skills intensive class. This tactic will assure that all participants have the

opportunity to focus on the skills that are foundational to success in this context – reading, writing, and math. It will also expand the potential applicants to those feeling confident in one academic discipline, but less so in the other.

This change will not significantly alter the schedule of the program, requiring four to five hours of classroom instruction and support activities. One scholarly habit that was difficult to foster because of this lengthy schedule was students' voluntary use of office hours. For the present year, faculty required students to sign up for office hours held at the end of the school day. This procedure demonstrated the value of one-on-one interaction with instructors, as indicated by one student who stated that Summer Bridge taught him how important office hours were and made him seek out his chemistry professor for help this fall when he didn't grasp a concept. However, forced office hours do not promote the students' initiating and taking responsibility for that contact. For that reason, the emphasis on editing and vocabulary development could be shifted to the reading and writing classes, as well as the tutorials, freeing an hour from the current schedule. All faculty could then hold office hours around an extended lunch hour. This change would also address a common student complaint – a too-short lunch break that had them rushing to complete their meal before returning to class.

This shifting of editing and vocabulary development to the tutors may create an untoward benefit for tutorials or, conversely, reinforce the students' misperceptions of the tutors' role. Currently, many students seem to expect tutors to provide definitive answers and explicit tutor-driven direction in how to develop essays, instead of seeing the tutorials as a collaborative interaction with the student "in the driver's seat." If tutorials become a place of instruction or assistance in vocabulary or editing principles, that misconception may deepen. If, however, the students remain responsible for exploring and peer teaching their editing and grammatical issues,

the tutors may be seen as the resources they intend to be. Whatever format the tutorials take in the future, the tutor role as facilitator needs to be explained, demonstrated, and reinforced throughout the semester to encourage students to take responsibility for their idea development and growth as writers and thinkers. Making this change in tutorial scope and having the two-track program may also entail having daily tutorials, rather than twice a week, and making math tutorials available for all students.

Assessment & expectations

As a means of closing the gap between student perception of outcome completion and reality explained previously, some means of threading SLOs more effectively throughout the program should be considered. For example, participants can explain, when submitting an assignment, how effectively they have met the SLO tied to the assignment and show what specific evidence exists in that assignment for attainment. They could also keep a SLO journal, much as these students kept reading response journals and feedback journals, to document when and where they felt they met specific outcomes. This task, though adding to the work of both students and faculty who would verify the work, may help ensure more reliability in the self-assessment and facilitate growing autonomy in their learning. Faculty routinely provide examples of student papers and grading rubrics to equip the students in assessing writing. This same procedure occurs with students' examining and assessing sample writing portfolios before students begin assembling their own portfolios. In the same way, exemplary artifacts should be provided with specific explication of the SLO demonstrated in that sample. This library of evidence will be useful for student understanding and will provide a stronger basis for ongoing assessment of the program.

The less than exemplary completion of math portfolios resulted in part from the students' recognition that the WRI 01 portfolio carried greater weight in their final grade. Having both portfolios due on the same day and within the same time exacerbated this attitude, as students were seen turning in their WRI 01 portfolio and then going to complete their math portfolio. If the schedule allows the math class to be held more regularly from the beginning of the program, it may be possible to stagger the submissions of portfolios – even having the math portfolio submitted at the beginning of the last week – so that each instrument can receive students' focused attention.

Future and Ongoing Assessment

As the program continues and expands, both direct and indirect assessment of student achievement at UC Merced will provide evaluation of the Summer Bridge program, as well as suggest any needed adjustments in the curriculum. In addition to completing end of course diagnostic essays, students are expected to participate in future focus group interviews. Additionally, the progress of the Summer Bridge cohort will be compared to demographically-similar cohorts who did not participate in Summer Bridge. Efforts will be made to determine issues that interfered with retention of Summer Bridge students in order to address and avoid potential barriers to the success of future students. Lessons learned from the success of Summer Bridge students may inform the instruction and support given to all UC Merced students.

Conclusion

The effects of 32 days of instruction delivered over eight weeks cannot be easily determined, even given the intensity of this program. Many of the gains are intangible, such as the confidence Summer Bridge students had on the first day of the fall semester since they knew how to read room numbers, had familiarity with the menu and procedures of the dining

commons, and recognized faces of established friends and faculty members. Others had gained a degree of independence by living in the dorms for eight weeks – or realized how much they had to learn about handling that independence responsibly. As one student proudly reported four weeks into the fall semester, “It [the program] definitely helped. Now, I don’t wait to start something. I know I can’t wait until the last minute.” The timidity and reticence many showed during orientation had disappeared in the context of familiarity the program helped establish in their routines. One student’s sentiments are perhaps unrealistic in claiming that “I’m going to think back and see that summerbridge had been one of the [highlights] in my educational life.” But, fostering that response among future participants would be consistent with creating enthusiastic apprentice scholars.

References

Chen, X. & Carroll, C. D. (2005). *First-Generation Students in Postsecondary Education: A Look at their College Transcripts* (NCES 2005-171). U.S. Department of Education. Washington, D.C.: National Center for Education Statistics.

Choy, S. P., Horn, L. J., Nunez, A.-M., & Chen, X. (2000). Transition to College: What Helps At-Risk Students and Students Whose Parents Did Not Attend College. New Directions for Institutional Research. 27 (3), 45-63.

Harklau, L., Losey, K. M., & Seigal, M. (1999). Linguistically diverse students and college writing: What is equitable and appropriate? In L. Harklau, K. Losey, and M. Siegal (Eds.), *Generation 1.5 meets college composition: Issues in teaching of writing to U.S.-educated learners of ESL* (pp. 1-16). Mahwah, NJ: Lawrence Erlbaum. Roberge, M. (2002). California's Generation 1.5 immigrants: What experiences, characteristics, and needs do they bring to our English classes? *CATESOL Journal*, *14*(2), 107-130.

Rumbaut, R. G., & Ima, K. (1988). *The adaptation of Southeast Asian refugee youth: A comparative study. Final Report to the Office of Resettlement.* San Diego: San Diego State University. [ERIC Document Service Reproduction Service No. ED 299 372]