

FOOTHILL COLLEGE Institutional Research and Planning

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то:	Sarah Munoz, Instructor, Mathematics Kathy Perino, Instructor, Mathematics Sarah Williams, Instructor, Mathematics Teresa Zwack, Instructor, Mathematics Peter Murray, Dean, Physical Sciences, Mathematics & Engineering
FROM:	Mandana Navi, Student Assistant Elaine Kuo, College Researcher
RE:	2013 Summer Bridge Math Program Exit Survey

<u>Overview</u>

Students who completed the first session of the Summer Bridge Math Program (July 8-July 18, 2013) were required to complete an exit survey. While 25 students started the program, only 22 responded to the exit survey (92%). 21 students responded to both intake and exit surveys.

Chart 1 shows the placement level change among students who completed the Summer Bridge Program. About 61% (14/23) of students increased their math placement from their pretest level (one to four levels increase); slightly over one-third of those students who experienced a placement level increase moved up one level (35%). Note that there were four SPED 80/TTW students included in this analysis (18%). Three of these students had pre- and post-placement results, which accounted for all who experienced a decrease in placement at end of the program. A third student experienced no change in placement and there was no post-placement result for the fourth student.



Chart 1. Math Placement Level Change among Summer Bridge Program Students, July 8-18, 2013 (Session 1).

Note: Two students did not have a math placement at the beginning and end of program.

Some highlights:

Student Educational Experiences

- Almost one-fifth of the students were undecided about their major (18%), which reflected the most common major selected. 10% of students reported a STEM major (Math N=1, Computer Science N=1). Other majors cited include IGETC (9%), Music Technology (9%), Nursing (9%) and Physical Education (9%). A complete list of intended majors can be viewed in the attached report.
- Almost two-thirds of the students took a course at Foothill prior to the Summer Bridge Program (64%).
- Almost all the students indicated they would use the tutorial services offered by PSME Center if there were enrolled in a math class this fall (91%).

Confidence Level

- After participating in the Summer Bridge Program, all students reported feeling at least somewhat prepared about their next math class. However, not all students reported that their math confidence increased by the end of the program (91%).
- After participating in the Summer Bridge Program, almost all of the students reported feeling at least somewhat prepared about where to go to access Foothill resources when faced with an academic challenge (95%).
- Almost all of the students reported that Summer Bridge components (ALEKS, Math faculty, Math topics reviewed, Pace of program, Working at own pace) increased their math confidence. However, only half of the students reported an increase in math confidence resulting from "Working with other students."

Math Perceptions

- Generally students who entered the program with higher levels of self-reported math abilities seem to report higher overall math self-confidence after completion of the Summer Bridge Program.
- The majority of students indicated that their confidence level along each math concept (total of 10 concepts) increased at least slightly at the end of the Summer Bridge Program (68%).
- Over half of the students entered the program indicating "no confidence" in "Graphing a line from the equation of a line" and "Finding the equation of a line if you are given the graph." At the end of the program, at least two-thirds of these "no confidence" students indicated they at least increased slightly in their confidence level along these two specific math concepts (77% and 64%). Note that about two-thirds of the students who initially indicated "no confidence" in these two math concepts ultimately increased one level in their math placement.
- About one-fourth of students indicated "no change" in their confidence level in the following math concepts: "Finding the equation of a line if you are given the graph" (27%), "Finding the slope of a line" (23%), and "Graphing a line from the equation of a line" (23%). Those students who initially indicated "no confidence" in these three specific math concepts (5 students), most experienced a one level increase in their math placement test result (4/5) despite "no change" in their confidence level.

Program Expectations

• The majority of students reported that the Summer Bridge Program components met or exceeded their expectations (4:1 ratio). The highest rating was for Math faculty (45% exceeded expectations) and the lowest was for interaction with other students (14% did not meet expectations).

Program Improvements

- 95% of students reported that they would recommend the program to other students.
- 45% of the students suggested increasing the length of the program to 3 weeks long.
- 32% of the students suggested additional time with math faculty.
- 27% of the students suggested adding an English/ESLL component to the program.

<u>Methodology</u>

Students who participated in the Summer Bridge program were required to fill out the exit survey on the last day of the program. Data was collected using ReMark survey software. It appears that three students didn't finish the program because there was no exit survey data for them.

Math placement was calculated based on the level change between the placement received closest to the Summer Bridge program (or on the first day of the Summer Bridge program on July 8, 2013) and the placement received at end of the program (July 18, 2013). Students who placed at the "Review and Retest" level were coded as being placed in NCBS 401A.

Source Summer Bridge Exit Survey FHDA IR&P, ODS [Test]

Summer Bridge Exit Survey 2013: Session 1 (July 8-18, 2013)

Response Rate 92%

N=22

Q2. What is your current or intended major?

Response	Ν	%
Undecided	4	18%
IGETC	2	9%
MusicTech	2	9%
Other: Nursing	2	9%
PE	2	9%
ChildDevelopment	1	5%
ComputerScience	1	5%
English	1	5%
Humanities	1	5%
InjuryCare	1	5%
Math	1	5%
Paramedic	1	5%
Psychology	1	5%
PsycologyTransfer	1	5%
VetTech	1	5%
Total	22	100%



Q3. Have you taken courses at Foothill prior to the Summer Bridge program?

Response	Ν	%
Yes	14	64%
No	8	36%
Total	22	100%



Q4. If you were to enroll in a Foothill math class this fall, would you use the tutoring services offered by PSME center?

Response	Ν	%
Yes	20	91%
No	2	9%
Total	22	100%



Q5. After participating in the Summer Bridge program, how prepared do you feel about the next math class you will take?

Response	Ν	%
Very prepared	10	45%
Somewhat prepared	12	55%
Not Prepared	0	0%
No Change	0	0%
Total	22	100%



Q6. After participating in the Summer Bridge program, how prepared do you feel about where to go to access Foothill resources and services when faced with an academic challenge?

Response	Ν	%
Very prepared	10	45%
Somewhat prepared	11	50%
Not prepared	1	5%
No Change	0	0%
Total	22	100%



Q7. Please rate your overall math confidence level after completing the Summer Bridge program.

Response	Ν	%
Increased significantly	5	23%
Increased somewhat	15	68%
Decreased somewhat	2	9%
Decreased significantly	0	0%
No Change	0	0%
Total	22	100%



Q8. Indicate if the following Summer Bridge program components increased your math confidence.

	Yes		No		Total	
Compnents	Ν	%	Ν	%	Ν	%
ALEKS	22	100%	0	0%	22	100%
Math faculty	20	91%	2	9%	22	100%
Math topics reviewed	22	100%	0	0%	22	100%
Pace of program	19	86%	3	14%	22	100%
Own pace	21	95%	1	5%	22	100%
Other students	11	50%	11	50%	22	100%



Q9. Please rate your confidence level regarding your ability to perform the following math concepts after taking Summer Bridge program.

Multiplying or Dividing fraction without a calculator

Response	Ν	%
Increased significantly	10	45%
Increased slightly	8	36%
Decreased significantly	1	5%
No change	3	14%
Total	22	100%



Adding or Subtracting fractions without a calculator.

Response	Ν	%
Increased significantly	10	45%
Increased slightly	8	36%
Decreased significantly	1	5%
No change	3	14%
Total	22	100%



Operations (+, -, x, /) with decimals, without a calculator.

Response	Ν	%
Increased significantly	11	50%
Increased slightly	7	32%
Decreased significantly	1	5%
No change	3	14%
Total	22	100%



Operations (+, -, x, /) with negative numbers, without a calculator.

Response	Ν	%
Increased significantly	10	45%
Increased slightly	7	32%
Decreased significantly	1	5%
No change	4	18%
Total	22	100%



Solving equations for x.

Response	Ν	%
Increased significantly	9	41%
Increased slightly	11	50%
Decreased slightly	1	5%
No change	1	5%
Total	22	100%



Plotting points on a graph [Example: (-3, 5)].

Response	Ν	%
Increased significantly	13	59%
Increased slightly	6	27%
Decreased slightly	1	5%
No change	2	9%
Total	22	100%



Finding the slope of a line.

Response	Ν	%
Increased significantly	8	36%
Increased slightly	9	41%
No change	5	23%
Total	22	100%



Graphing a line from the equation of a line.

Response	Ν	%
Increased significantly	6	27%
Increased slightly	11	50%
No change	5	23%
Total	22	100%



Finding the equation for a line if you are given the graph.

Response	Ν	%
Increased significantly	5	23%
Increased slightly	11	50%
No change	6	27%
Total	22	100%



Working with rules of exponents.

Response	Ν	%
Increased significantly	8	36%
Increased slightly	10	45%
Decreased slightly	1	5%
No change	3	14%
Total	22	100%



Q10. Please indicate whether the following program components met your expectations:

	Exc expec	eed tations	N expec	let tations	Did exp	not meet ectations	т	otal
SB components	Ν	%	Ν	%	Ν	%	Ν	%
Getting familiar w/FH	5	23%	16	73%	1	5%	22	100%
Program length	5	23%	17	77%	0	0%	22	100%
Math topics	7	32%	13	59%	2	9%	22	100%
Math faculty	10	45%	12	55%	0	0%	22	100%
Mtg other students	5	23%	14	64%	3	14%	22	100%



Q11. What improvements or suggestions do you have for the Summer Bridge program? (check all boxes that apply)

Response	Ν	%
Add English /ESLL component		
to the program	6	27%
Additional time with math		
faculty	7	32%
Keep it 2 weeks long	6	27%
Make it 3 weeks long	10	45%
Make it longer than 3 weeks	2	9%
Opportunity to work with		
other students	2	9%
Other	1	5%
None	2	9%
Number of respondents	22	
Number of responses	36	
Other: A speaking up pace		



Note: Students could select more than one option so percentages do not total 100%

Q12. Would you recommend the Summer Bridge program to other students?

Response	Ν	%
Yes	21	95%
Depends	1	5%
Total	22	100%

Comments:

Great interaction with instructors with math skills. Teresa and Sara did a great job with instruction. The computer and instructor help made learning a lot easier. It helped me a lot!!

It was a good review.



Math Placement Level Change

Level Change	Ν	%
1 level increase	8	35%
No change	7	30%
2 levels increase	4	17%
4 levels increase	1	4%
3 levels increase	1	4%
1 level decrease	1	4%
3 levels decrease	1	4%
Total	23	100%

Note: 2 students did not have a math placement at beginning <u>and</u> end of program





SUMMER BRIDGE MATH PROGRAM

Thank you for your participation in Foothill College's Summer Bridge Math Program! We hope you had the opportunity to review your math skills and improve your math placement. Any feedback you have about the program would be greatly appreciated.

Survey results will be used to evaluate and enhance the Summer Bridge Math Program.

All auestions reau	lire a response.
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Q1. What is your student identification number?

(If you do not know your ID#, please enter 87654321)

Q2. What is your current or intended major? Please Select One

If other:

Q3. Have you taken courses at Foothill prior to the Summer Bridge program?

Yes

No

Q4. If you were to enroll in a Foothill math class this fall, would you use the tutoring services offered by PSME center?

Yes

No

Q5. After participating in the Summer Bridge program, how prepared do you feel about the next math you will take?

Very prepared

Somewhat prepared

Not prepared

No change

Q6. After participating in the Summer Bridge program, how prepared do you feel about where to go to access Foothill resources and services when faced with an academic challenge?

Very prepared

Somewhat prepared

Not prepared

No change

Updated 07/17/2013



All questions require a response.

Q7. Please rate your overall math confidence level after completing the Summer Bridge program.

Increased significantly

Increased somewhat

Decreased somewhat

Decreased significantly

No change

Q8. Indicate if the following Summer Bridge program components increased your math confidence.

	Yes	No
ALEKS software		
Math faculty		
Math topics reviewed		
Pace of program		
Working at own pace		
Working with other		

students

Q9. Please rate your confidence level regarding your ability to perform the following math concepts after taking Summer Bridge program.

	Increased significantly	Increased slightly	Decreased slightly	Decreased significantly	No change
Multiplying or Dividing fractions without a calculator.					
Adding or Subtracting fractions without a calculator.					
Operations (+, -, x, /) with decimals, without a calculator.					
Operations (+, -, x, /) with negative numbers, without calculator.					
Solving equations for x.					
Plotting points on a graph [example: (-3, 5)].					
Finding the slope of a line.					
Graphing a line from the equation of a line.					
Finding the equation for a line if you are					



SUMMER BRIDGE MATH PROGRAM

All questions require a response.

Q10. Please indicate whether the following program components met your expectations:

	Exceeded expectations	Met expectations	Did not meet expectations
Getting familiar with Foothill campus			
Length of program			
Math topics reviewed			
Math faculty			
Meeting other students			

Q11. What improvements or suggestions do you have for the Summer Bridge program? (check all boxes that apply)

Add English/ESLL component to the program

Additional time with math faculty

Keep it 2 weeks long

Make it 3 weeks long

Make it longer than 3 weeks

Opportunity to work with other students

Other

None

Q12. Would you recommend the Summer Bridge program to other students?

Yes

No

Depends

Please explain:

Updated 07/17/2013