

Teaching and Learning Center Student Outcomes Survey Report - Spring 2008

TLC STUDENT OUTCOMES

TLC students will:

- a) Identify personal, academic and career goals;
- b) Identify obstacles to academic success and use appropriate support services and resources to overcome those obstacles; and
- c) Demonstrate ability to actively pursue those stated goals.

SUMMARY

- The TLC Outcomes survey was administered to eighty-one students (N=81) in five different TLC classes in Spring 2008.
- The majority of respondents reported that the TLC was *pretty important* in helping them identify and achieve their *academic* goals. The majority of Math Path 2 students reported the TLC as being *somewhat important* for helping them identify and achieve their academic goals.
- The majority of survey respondents reported that the TLC was *slightly less important* in helping them identify and achieve their *career* goals than their *academic* goals. The majority of Math Path 2 respondents reported the TLC as being *less important*.
- 68% of the students reported the TLC instructors as being *important* in helping them identify and achieve their academic and career goals. Next *important* were TLC tutors (54%), then TLC classmates (51%), the TLC counselor (47%), the TLC directors (37%), and the TLC lab coordinator (20%).
- Most students saw a TLC tutor at least once a week during the last year and visited the TLC counselor or met with a TLC instructor outside of class less than once a month. Compared to other respondents Math Path 2 students reported fewer incidences of using a tutor, seeing the TLC counselor, and meeting with their TLC instructor(s) outside of class.
- Differences in Math Path 2 students may be attributed to the fact that Math Path 2 classes are trigonometry and pre-calculus, naturally drawing a more advanced, engaged, and motivated student who may see less value in using TLC resources. Also, they are not as indoctrinated into the TLC because Math Path does not include a summer bridge or first-year experience.
- The TLC offers very little career advisement or counseling; therefore, it is not surprising that students found the TLC less important in helping them define and achieve a career pathway.
- Recommendations include recruiting successful Math Path 2 students as tutor/mentors, engaging Math Path 2 students more actively in TLC programs and activities, developing a program for faculty to be trained and empowered to advise and mentor their TLC students more effectively, and creating more opportunities for instructor/student/counselor collaboration.

BACKGROUND

The TLC Outcomes survey was administered to five different TLC classes in Spring 2008: .XL 6, Cohorts A and B; .XL Health Sciences; and Math Path 1 and 2. The data were analyzed both in sum and across the separate classes and reported in the tables below.

FINDINGS

When asked how important the TLC had been in helping them *identify* their *academic* goals, most said that the TLC was “pretty important” (mean = 3.99, median = 4.00, mode = 4). While not statistically significant (i.e., $p < .05$), there was an important difference between the groups taking the survey with the Math Path 2 group scoring lower than all others (ANOVA $f=2.301$, $df=4$, $p = 0.066$) (Table 1).

Table 1. How important has the TLC been in helping you **identify** your *academic* goals?

Class	n	Mean	St. Dev.	Median	Mode
.XL6 Cohort A	21	4.33	1.017	5.00	5
.XL Health Sciences	9	4.22	0.972	4.00	4,5*
Math Path 1	11	4.18	0.874	4.00	5
.XL6 Cohort B	26	3.85	0.967	4.00	4
<i>Math Path 2**</i>	<i>14</i>	<i>3.43</i>	<i>0.852</i>	<i>3.00</i>	<i>3</i>
Total	81	3.99	0.981	4.00	4,5*

Scale: 1-5, Not at all important (1), Not very important (2), Somewhat important (3), Pretty important (4), Very important (5)

*Multiple Modes

**Significantly different from other groups

Participants were also asked how important the TLC had been in helping them *achieve* their *academic* goals (Table 2). Again, most reported the TLC being “pretty important” (mean = 4.06, median = 4.00, mode = 4). Again also, there was a significant difference between the groups with the Math Path 2 group reporting the TLC being less important in helping them achieve their academic goals. (ANOVA $f=2.381$, $df=4$, $p = 0.013$)

Table 2. How important has the TLC been in helping you **achieve** your *academic* goals?

Class	n	Mean	St. Dev.	Median	Mode
.XL6 Cohort A	21	4.43	0.507	4.00	4
.XL Health Sciences	9	4.33	1.000	5.00	5
Math Path 1	11	4.18	0.751	4.00	4
.XL6 Cohort B	26	3.96	0.999	4.00	4
<i>Math Path 2**</i>	<i>14</i>	<i>3.43</i>	<i>0.852</i>	<i>3.00</i>	<i>3</i>
Total	81	4.06	0.885	4.00	4

Scale: 1-5, Not at all important (1), Not very important (2), Somewhat important (3), Pretty important (4), Very important (5)

**Significantly different from other groups

In terms of students *identifying* their *career* goal, participants rated the importance of the TLC as about halfway between “somewhat important” (3) and “pretty important” (4) (mean = 3.42, median = 3, mode = 3). Again, a practically significant difference between the groups existed with Math Path 2 reporting less importance in the TLC helping them identify their career goal (ANOVA $f=2.257$, $df=4$, $p = 0.071$) (Table 3).

Table 3. How important has the TLC been in helping you **identify** a *career* goal?

Class	n	Mean	St. Dev.	Median	Mode
.XL Health Sciences	9	4.11	1.054	4.00	5
.XL6 Cohort A	21	3.62	0.973	4.00	4
Math Path 1	11	3.64	1.027	3.00	3
.XL6 Cohort B	26	3.19	1.201	3.00	3,4
<i>Math Path 2**</i>	<i>14</i>	<i>2.93</i>	<i>0.997</i>	<i>3.00</i>	<i>3</i>
Total	81	3.42	1.105	3.00	3

Scale: 1-5, Not at all important (1), Not very important (2), Somewhat important (3), Pretty important (4), Very important (5)

*Multiple Modes

**Significantly different from other groups

When asked how important the TLC had been in helping them *achieve* their *career* goal, participants were once again split between “somewhat” and “pretty” important (mean = 3.65, median = 4.00, mode = 3) (Table 4). Again, a practical difference between the groups existed with Math Path 2 reporting less importance in the TLC helping them achieve their career goal (ANOVA $f=2.307$, $df=4$, $p = 0.066$).

Table 4. How important has the TLC been in helping you **achieve** your *career* goal?

Class	n	Mean	St. Dev.	Median	Mode
.XL Health Sciences	9	4.22	0.972	5.00	5
Math Path 1	11	3.82	0.874	4.00	3
.XL6 Cohort B	26	3.73	1.151	4.00	4,5*
.XL6 Cohort A	21	3.67	0.856	4.00	3
<i>Math Path 2**</i>	<i>14</i>	<i>3.00</i>	<i>1.038</i>	<i>3.00</i>	<i>3</i>
Total	81	3.65	1.039	4.00	3

Scale: 1-5, Not at all important (1), Not very important (2), Somewhat important (3), Pretty important (4), Very important (5)

*Multiple Modes

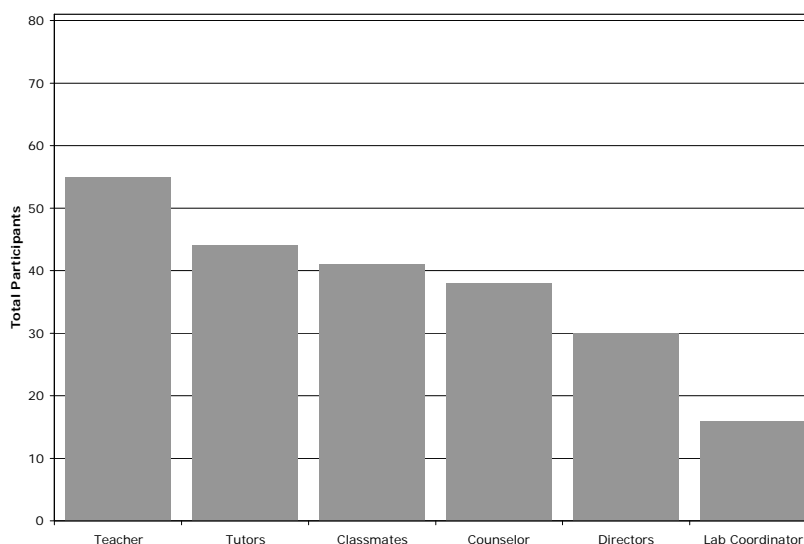
**Significantly different from other groups

Participants were asked to identify the person(s) who they were referring to when reporting importance in identifying and achieving their goals in questions 1-4 (Table 5, Figure 1). They were asked to check all that applied and more than two-thirds (68%) chose their TLC teachers. TLC Tutors were selected by more than half (54%) and their TLC Classmates were selected by just about half (51%) of the participants. Less than half (47%) selected the counselor, just over a third (37%) selected the TLC Directors and a fifth (20%) selected the TLC Lab Coordinator.

Table 5. When you referred to the TLC in Questions 1-4, what TLC personnel were you referring to?

	Math Path 1	Math Path 2	.XL6 Cohort A	.XL6 Cohort B	.XL Health Sciences	Total
TLC Teachers	5/11=45%	7/14=50%	16/21=76%	20/26=77%	7/9=78%	55/81=68%
TLC Tutors	7/11=64%	6/14=43%	13/21=62%	12/26=46%	6/9=67%	44/81=54%
TLC Classmates	7/11=64%	5/14=36%	13/21=62%	10/26=39%	6/9=67%	41/81=51%
TLC Counselor	7/11=64%	6/14=43%	10/21=48%	8/26=31%	7/9=78%	38/81=47%
TLC Directors	7/11=64%	3/14=21%	5/21=24%	10/26=39%	5/9=56%	30/81=37%
TLC Lab Coordinator	3/11=27%	0=0%	5/21=24%	5/26=19%	3/9=33%	16/81=20%

Figure 1. Number of Participants Who Selected Specific TLC Staff (N=81)



Participants were asked how many times they met with a TLC Tutor during the past year. Most students reported meeting with a tutor once a week (mean = 4.59, median = 5.00, mode = 7) (Table 6). There was a statistically significant difference among the groups with Math Path 2 reporting significantly less tutor visits, most of them reporting having never met with a TLC Tutor (mean = 3.29, median = 2.50, mode = 1) (ANOVA $f=2.852$, $df=4$, $p = 0.029$).

Table 6. During this past year, approximately how many times did you meet with a TLC tutor?

Class	n	Mean	St. Dev.	Median	Mode
Math Path 1	11	5.73	1.555	6.00	6,7*
.XL6 Cohort A	21	5.33	1.880	6.00	7
.XL6 Cohort B	26	4.35	2.365	5.00	7
.XL Health Sciences	9	4.22	1.922	4.00	4
<i>Math Path 2**</i>	<i>14</i>	<i>3.29</i>	<i>2.555</i>	<i>2.50</i>	<i>1</i>
Total	81	4.59	2.24	5.00	7

Scale: 1-7, None, I never met with (1), At least once during the last year (2), A few times during the last year (3), Once a month (4), Once a week (5), A few times a week, most weeks (6), A few times a week, every week (7)

*Multiple Modes

**Significantly different from other groups

Participants reported having met with the TLC Counselor between “once” and “a few times” during the last year (mean = 2.59, median = 2.00, mode = 2) (Table 7). Again, there was a significant difference among the groups with the Math Path 2 group reporting lower meetings with the Counselor than the others. (ANOVA $f=2.991$, $df=4$, $p = 0.024$)

Table 7. During this past year, how many times did you meet with the TLC counselor?

Class	n	Mean	St. Dev.	Median	Mode
Math Path 1	11	3.45	1.864	3.00	1,2*
.XL6 Cohort A	21	2.81	1.030	3.00	3
.XL Health Sciences	9	2.78	1.302	2.00	2
.XL6 Cohort B	26	2.38	1.235	2.00	3
<i>Math Path 2**</i>	<i>14</i>	<i>1.86</i>	<i>0.770</i>	<i>2.00</i>	<i>2</i>
Total	81	2.59	1.292	2.00	2,3*

Scale: 1-7, None, I never met with (1), At least once during the last year (2), A few times during the last year (3), Once a month (4), Once a week (5), A few times a week, most weeks (6), A few times a week, every week (7)

*Multiple Modes

**Significantly different from other groups

Finally, participants were asked how many times they met with a TLC Instructor outside of class during the last year. Most reported not having met at all with a TLC Instructor outside of class, but the mean was closer to having met a few times during the last year (mean = 3.19, median, 3.00, mode = 1) (Table 8). There was a significant difference among the groups (ANOVA $f=1.059$, $df=4$, $p = 0.383$) but *post hoc* analyses provided no clear indication of what group affected that difference.

Table 8. During this past year, how many times did you meet with a TLC instructor outside of class?

Class	n	Mean	St. Dev.	Median	Mode
Math Path 1	11	3.64	2.292	3.00	1,3*
.XL6 Cohort A	21	3.62	1.802	4.00	1,3,5,6*
.XL Health Sciences	9	3.44	1.740	3.00	2,3,4,6*
Math Path 2	14	2.79	1.626	2.50	2
.XL6 Cohort B	26	2.77	1.632	2.50	1
Total	81	3.19	1.790	3.00	1

*Multiple Modes

Scale: 1-7, None, I never met with (1), At least once during the last year (2), A few times during the last year (3), Once a month (4), Once a week (5), A few times a week, most weeks (6), A few times a week, every week (7)

When comparing the overall means of how often students met with the different resources available to them, they met most often with the Tutors, then Instructors, followed by the Counselor (Table 9). These means are all significantly different from one another ($p < .02$) making these differences worth noting.

Table 9. During this past year, how many times did you meet with these people?

Class	n	Mean	St. Dev.	Median	Mode
Tutor	81	4.59	2.24	5.00	7
Instructor Outside Class	81	3.19	1.790	3.00	1
Counselor	81	2.59	1.292	2.00	2,3*

*Multiple Modes

Scale: 1-7, None, I never met with (1), At least once during the last year (2), A few times during the last year (3), Once a month (4), Once a week (5), A few times a week, most weeks (6), A few times a week, every week (7)

IMPLICATIONS AND DISCUSSION

- There may be several ways to explain Math Path 2 students' lack of identification with the TLC and their apparent lack of interest in using TLC resources: 1) Math Path students do not enroll in a summer bridge or first-year experience. 2) Math Path 2 is trigonometry and pre-calculus; students in these courses tend to be highly motivated, successful in math, and good at making use of all available resources, including those found outside the TLC. Nevertheless, the TLC offers useful resources and efforts should be made to engage them in TLC activities and resources.
- The TLC offers very little career advisement or counseling; therefore, it is not surprising that students found the TLC less important in helping them define a career pathway.
- Consistent with PCC and nation data, instructors remain the most constant and effective contact with students and should be trained and empowered to mentor and advise students in a variety areas, including but not limited to academic success and choice of major, career, and transfer institution.

RECCOMENDATIONS

1. Take greater advantage of high achieving math students by recruiting interested and suitable Math Path 2 students as TLC tutor/mentors.
2. Develop TLC programs and activities that will engage Math Path 2 students more actively, for example, math club competitions and STEM field career exploration.
3. Develop a program so that faculty can be trained and empowered to advise and mentor their TLC students more often and effectively.
4. Create more opportunities for TLC instructor/student/counselor collaboration, such class assignments, field trips, and presentations.