



# Evaluation of the peer tutor program for a first year biology course (BIOL 121)

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# Introduction

In 2006, the Biology Program at the University of British Columbia (UBC) launched a peer tutoring program. Potential tutors applied through the university's paid work/study program, which is open to all students. Successful candidates were selected based on previous knowledge of courses and then matched with a course and an instructor. Peer tutors are highly involved; they attend all relevant lectures for their course section, monitor the electronic discussion board (that has many posts), and are available to facilitate student learning (help students/answer student questions) at the "Learning Centre", a designated room equipped with resources. However, low student attendance at the Learning Centre shows the hesitancy of students to come in person to get help from peer tutors and use the resources at the Learning Centre. The objectives of this study were to assess the perceived value of the peer tutors and the Learning Centre resources in a first year biology majors' course (BIOL 121) at UBC, and subsequently to suggest and implement changes to increase utilization of both peer tutors and the Learning Centre resources.

# Materials and Methods

## Assessing Learning Centre usage

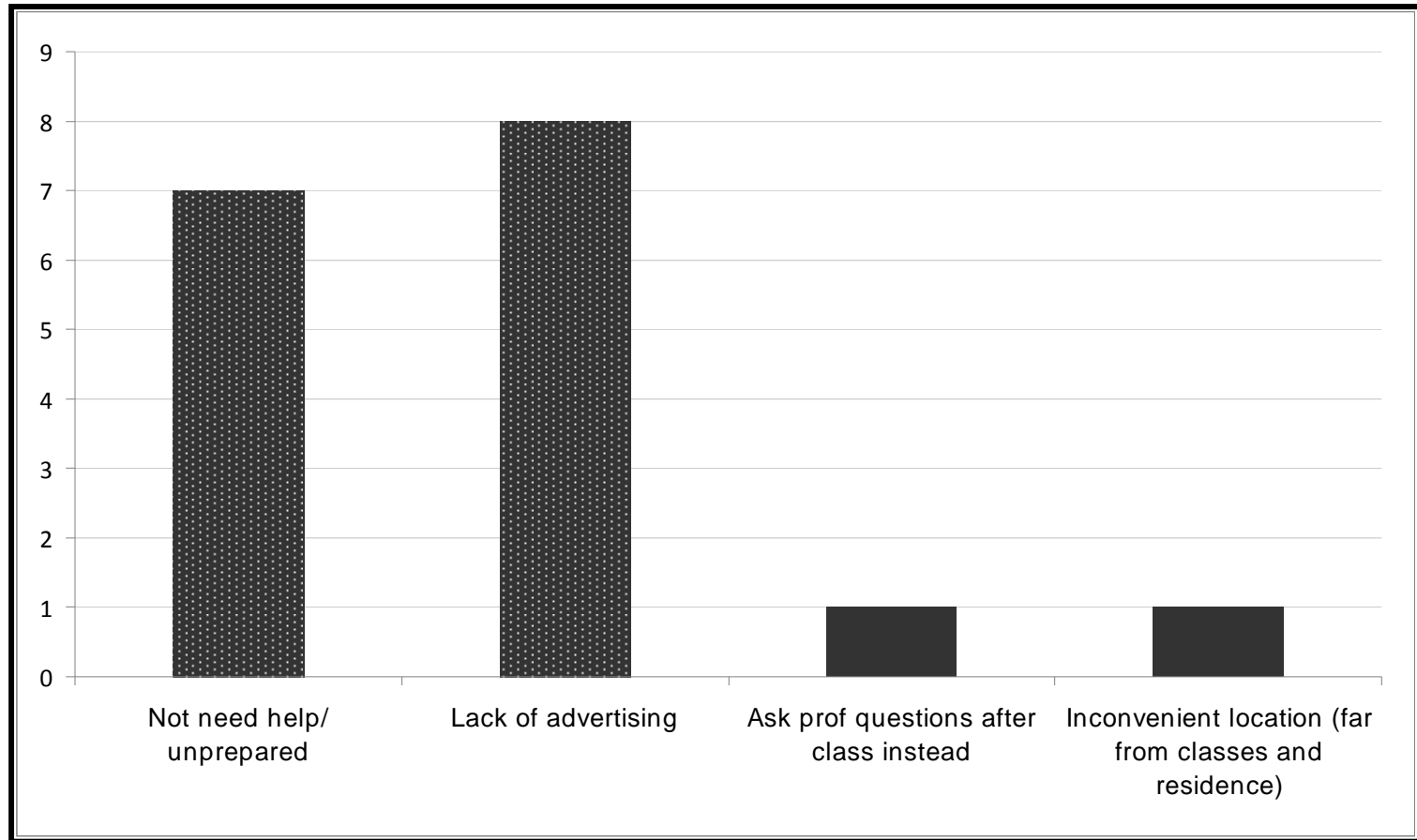
- **Focus group interviews**

- Initial data were based on 2 focus group interviews comprised of students that have used peer tutoring and the Learning Centre facilities.
- In total 11 students participated.
- Students filled out questionnaires individually followed by round table discussions using the questions as a starting point. Responses recorded on flip charts and audio taped.
- Results were graphed.

- **Online Surveys**

- A set of online surveys to further assess the perceived value of peer tutors and the Learning Centre resources were then developed and administered using SurveyMonkey.
- A total of 174 survey responses were obtained. Of which
  - 148 survey responses were obtained for those who have NOT used the Learning Centre.
  - 26 survey responses for those who HAVE used the Learning Centre.

# Focus Group Responses



Responses obtained from focus groups to the open ended question “Please indicate your reasons for NOT using the Learning Centre”. All of the responses fit into these four major categories.

# Survey: Students who have NOT used the Learning Centre

Question: What are your reasons for not using the Learning Centre?

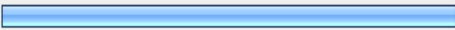
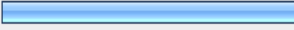

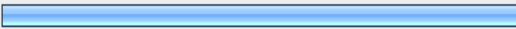
	Strongly agree	Mildly agree	Neutral	Mildly disagree	Strongly disagree	Rating Average	Response Count
I do NOT need help	3.4% (5)	14.9% (22)	27.0% (40)	37.8% (56)	16.9% (25)	3.50	148
Unaware of Learning Centre location	25.0% (37)	37.2% (55)	12.8% (19)	13.5% (20)	11.5% (17)	2.49	148
Unaware of peer tutors hours at the Learning Centre	23.0% (34)	39.2% (58)	14.9% (22)	14.2% (21)	8.8% (13)	2.47	148
Homework is optional (NOT graded)	13.5% (20)	16.2% (24)	22.3% (33)	20.3% (30)	27.7% (41)	3.32	148
I am too busy to go to the Learning Centre	18.2% (27)	43.2% (64)	23.6% (35)	8.1% (12)	6.8% (10)	2.42	148
Inconvenient peer tutors' Learning Centre office hours	10.8% (16)	27.0% (40)	49.3% (73)	6.8% (10)	6.1% (9)	2.70	148
I prefer to get help from friends	5.4% (8)	39.2% (58)	38.5% (57)	12.2% (18)	4.7% (7)	2.72	148
I prefer to get help from the professor	11.5% (17)	23.6% (35)	45.3% (67)	13.5% (20)	6.1% (9)	2.79	148
I prefer to get help online (ie course's Vista site, email etc.)	13.5% (20)	33.8% (50)	31.1% (46)	16.9% (25)	4.7% (7)	2.66	148

## Question: What would motivate you to use the Learning Centre?


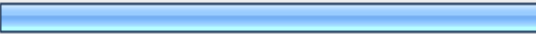
	Strongly agree	Mildly agree	Neutral	Mildly disagree	Strongly disagree	Rating Average	Response Count
If there was a Learning Centre social event at the beginning of the term	13.5% (20)	23.0% (34)	30.4% (45)	23.6% (35)	9.5% (14)	2.93	148
If the Learning Centre was better advertised	34.5% (51)	34.5% (51)	14.2% (21)	9.5% (14)	7.4% (11)	2.21	148
If homework were for marks	11.5% (17)	20.9% (31)	33.8% (50)	17.6% (26)	16.2% (24)	3.06	148
If the Learning Centre was at a different location	7.4% (11)	10.8% (16)	58.1% (86)	14.2% (21)	9.5% (14)	3.07	148
If the Learning Centre was also used to conduct tutorials	25.7% (38)	45.3% (67)	22.3% (33)	2.0% (3)	4.7% (7)	2.15	148
If there was more support from the Professor to use the Learning Centre	16.2% (24)	47.3% (70)	25.7% (38)	6.8% (10)	4.1% (6)	2.35	148
If there was a consistent time slot (between 11am and 3pm) Monday through Friday when at least 1 peer tutor is present	30.4% (45)	36.5% (54)	25.0% (37)	3.4% (5)	4.7% (7)	2.16	148
If there were a catalogue of old exams, problem sets etc that was only available at the Learning Centre	53.4% (79)	31.8% (47)	7.4% (11)	1.4% (2)	6.1% (9)	1.75	148
If there were common study questions between all BIOL 121 sections	43.9% (65)	35.1% (52)	14.9% (22)	2.0% (3)	4.1% (6)	1.87	148

# Awareness of Peer Tutors

**Question: Which professor teaches your section of BIOL 121?**

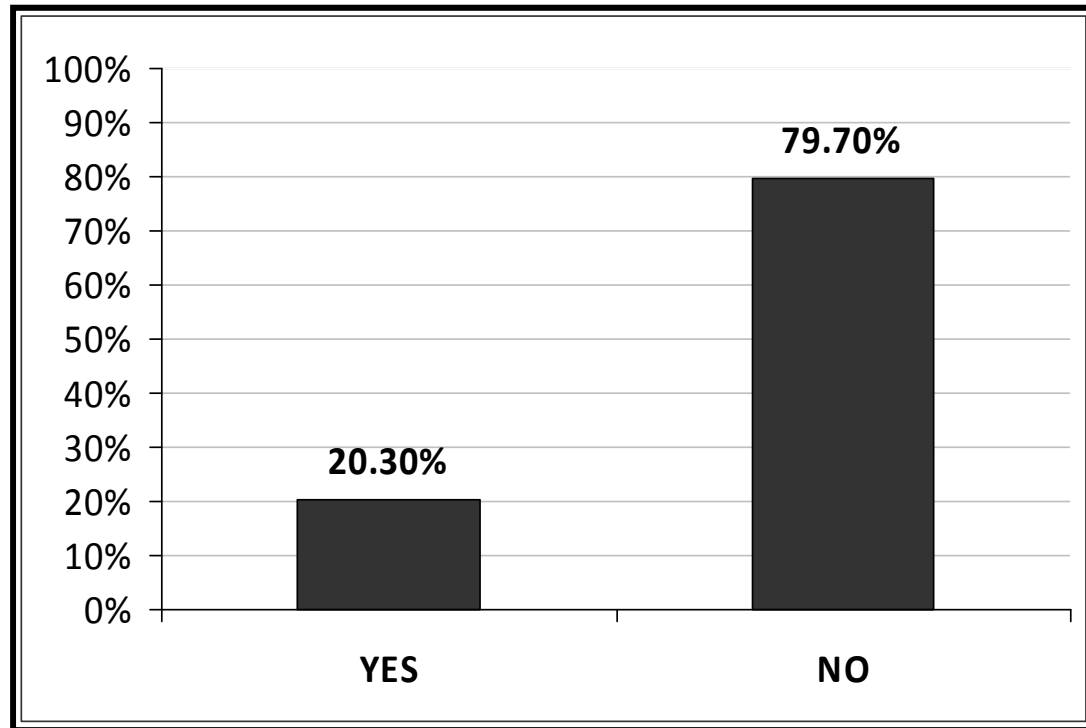
		Response Percent	Response Count
Dr. Wayne Goodey (MWF 9 am OR MWF 12 pm)		34.5%	51
Dr. Michael Hawkes (TTh 9:30 am)		22.3%	33
Dr. Celeste Leander (TTh 8 am)		4.1%	6
Dr. Rosie Redfield (MWF 1 pm OR MWF 2 pm)		39.2%	58
<i>answered question</i>			148

**Question: Does your section of BIOL 121 have peer tutors?**

		Response Percent	Response Count
Yes		63.5%	94
No		36.5%	54
<i>answered question</i>			148

# Assessing usage of study groups

**Question: We have heard from your peers that some of you were forming study groups for your courses. Do you study for BIOL 121 in a study group?**



n=148



# Background information on students

**Question: Please select the range in which your BIOL 121 midterm mark(s) fall into.**

Midterm 1							Response Count
Midterm mark range (%)	greater than or equal to 80%	average (%) in the 70s	average (%) in the 60s	average (%) in the 50s	less than 50%		
	25.7% (38)	10.1% (15)	20.3% (30)	20.9% (31)	23.0% (34)		148
Midterm 2							Response Count
Midterm mark range (%)	greater than or equal to 80%	average (%) in the 70s	average (%) in the 60s	average (%) in the 50s	less than 50%	N/A	
	14.2% (21)	7.4% (11)	8.8% (13)	8.8% (13)	14.9% (22)	45.9% (68)	148
						<i>answered question</i>	148

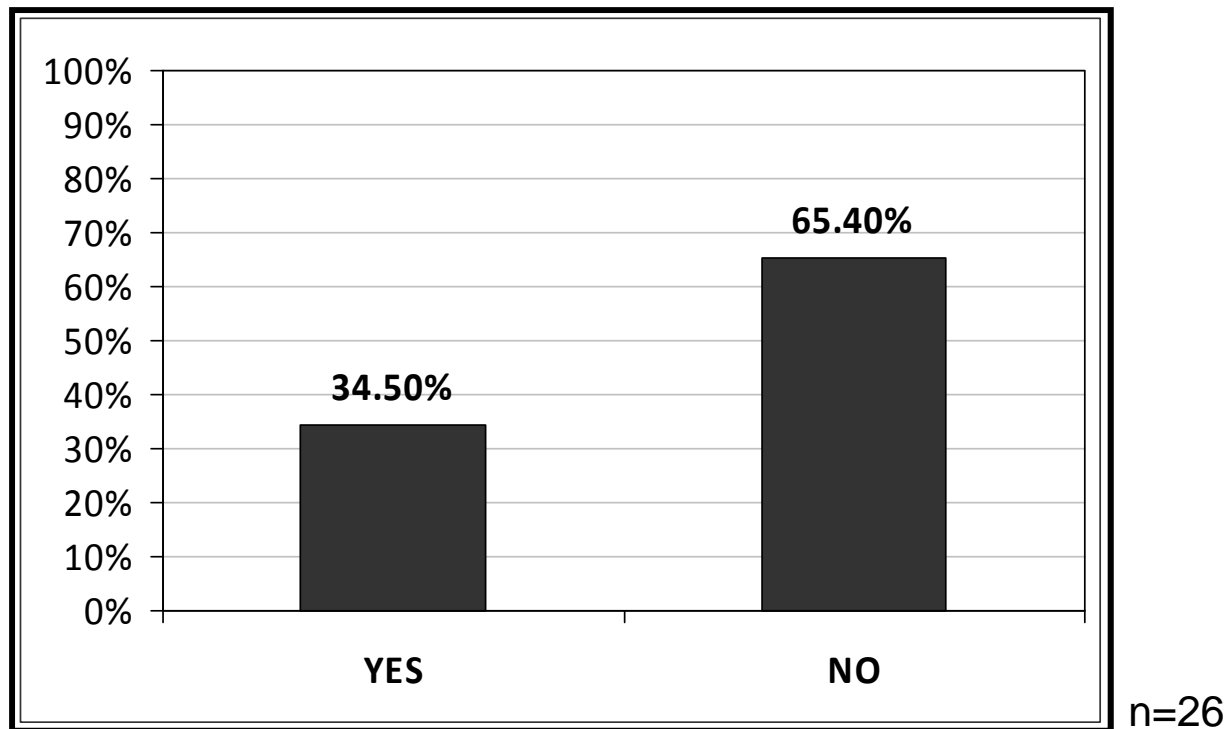
# Survey: Students who HAVE used the Learning Centre

**Question: What factors would increase your usage of the Learning Centre?**

	Strongly agree	Mildly agree	Neutral	Mildly disagree	Strongly disagree	Rating Average	Response Count
If homework were for marks	23.1% (6)	15.4% (4)	46.2% (12)	0.0% (0)	15.4% (4)	2.69	26
If the Learning Centre was at a different location	11.5% (3)	11.5% (3)	46.2% (12)	15.4% (4)	15.4% (4)	3.12	26
If the Learning Centre was also used to conduct tutorials	42.3% (11)	26.9% (7)	26.9% (7)	3.8% (1)	0.0% (0)	1.92	26
If there was more support from the Professor to use the Learning Centre	23.1% (6)	30.8% (8)	42.3% (11)	0.0% (0)	3.8% (1)	2.31	26
If there was a consistent time slot (between 11am and 3pm) Monday through Friday when at least 1 peer tutor is present	38.5% (10)	26.9% (7)	30.8% (8)	3.8% (1)	0.0% (0)	2.00	26
If there were a catalogue of old exams, problem sets etc that was only available at the Learning Centre	73.1% (19)	15.4% (4)	3.8% (1)	3.8% (1)	3.8% (1)	1.50	26
If there were common study questions between all BIOL 121 sections	69.2% (18)	11.5% (3)	11.5% (3)	3.8% (1)	3.8% (1)	1.62	26

# Assessing usage of study groups

**Question: We have heard from your peers that some of you were forming study groups for your courses. Do you study for BIOL 121 in a study group?**



# Background information on students

**Question: Please select the range in which your BIOL 121 midterm mark(s) fall into.**

Midterm 1							
	greater than or equal to 80%	average (%) in the 70s	average (%) in the 60s	average (%) in the 50s	less than 50%	Response Count	
Midterm mark (%)	19.2% (5)	7.7% (2)	15.4% (4)	26.9% (7)	30.8% (8)	26	
Midterm 2							
	greater than or equal to 80%	average (%) in the 70s	average (%) in the 60s	average (%) in the 50s	less than 50%	N/A	Response Count
Midterm mark (%)	0.0% (0)	7.7% (2)	7.7% (2)	7.7% (2)	38.5% (10)	38.5% (10)	26
	<i>answered question</i>						26
	<i>skipped question</i>						191

# Results and Discussion

- **Preliminary results from online surveys**
  - Online surveys are active until end of April
  - Showed results from selected questions
  
- **Overall, results suggest**
  - Lack of awareness of Learning Centre
  - Unaware of value of using the Learning Centre

# Lack of awareness of Learning Centre

- **Results suggest**

- Lack of awareness of Learning Centre is an issue (location, peer tutor office hours etc.)
- 18% of students were unaware of peer tutor(s) in their section of BIOL 121

# Is similar peer instruction being accomplished outside of class?

To elucidate whether or not peer group learning similar to the Learning Centre activities was being accomplished outside of the Learning Centre, students were asked if they study in groups for the BIOL 121 course.

⇒ Only a minority of students use study groups to study for BIOL 121 (< 36% for both groups of students)

# Factors that would motivate students to use the Learning Centre

- **Better advertising overall including**
  - more support to use the Learning Centre
  - a consistent time slot Mon to Fri where a peer tutor is available
- **Changes in the way the Learning Centre is utilized**
  - Used to also conduct tutorials
  - Have resources available at the Learning Centre (such as a catalogue of old exams, problem sets etc)
- **Changes in the BIOL 121 course itself**
  - Have common study questions across *all* sections of BIOL 121



# Acknowledgements

- We thank
  - The peer tutors (Gordana Panic, Elden Chan, Devon Furgala, Jessica Lu) for offering valuable assistance and feedback
  - The BIOL 121 professors and Angie O’Neill who provided valuable support for the project
  - The BIOL 121 students who participated in the focus groups and the online surveys
  - Dr. Tamara Kelly, CWSEI-LS STLF
- This project was funded by
  - Teaching and Academic Growth
  - Teaching and Learning Enhancement Funds
  - Initial funding from CWSEI for Tamara Kelly