# **Bachelor of Arts in Philosophy**

# Logic Lab

University Division:: Academic Affairs Name of person Responsible for overseeing SSI project/activities:: John Mumma Email Address:: jmumma@csusb.edu Title:: Associate Professor Funding Type: Recurring funding Extension:: Total SSI amount allocated this year:: \$10, 725 Total SSI amount expended this year:: Number of unique students served (July1-Winter Quarter): An iPad-based sign in system recorded 267 visits to the lab during the Fall and Winter quarters.

## SSI Program/Project Overview :

The Logic lab provides support for students developing their critical thinking skills in courses offered by the Philosophy Department. This support has two components: tutoring from undergraduate lab assistants, and computer-aided instruction facilitated by lab assistants (there are 16 workstations in the lab, equipped with specialized software). The Logic lab serves all students enrolled in a philosophy course—3,500 in number annually. The core group of students served by the lab use it on almost a daily basis. The group is composed of those enrolled in Phil 200, Critical Thinking Through Symbolic Logic. The lab computers run software that allow these students to ascertain the validity of their proofs from their Phil 200 classes (indeed, students in Phil 200 are required to visit the Logic lab to complete specific assignments). Since Phil 200 satisfies the general education critical thinking requirement and has a high DFWI rate, it is a bottleneck course. The support the Logic lab provides to students in the course thus contributes to the CSU Graduation Initiative 2025.

In his October 2013 visit to campus at the invitation of President Tomas Morales, renowned student success expert Dr. Vincent Tinto recommended highly the tutoring experience, summing it up as: students doing well helping students who are not doing that well is to the educational benefit of all. This is exactly what happens in the Logic lab. It provides educational benefits and a very effective learning environment for students. The Logic lab tutors help students with paper drafts, homework assignments and problem sets for courses in introductory philosophy, critical thinking, and symbolic logic. They also provide one-to-one and group instruction on the use of specialized logic software. The experience our Logic lab tutors gain helps them build a strong resume and makes them more competitive when they apply for jobs after they graduate from CSUSB. The effectiveness of the Logic lab depends essentially on its ability to accommodate the busy schedules of CSUSB students. The Philosophy department does not have the funds to keep the lab open the number of hours necessary to do this, and absent funding from outside the department it would fail to serve a great number of the students it is intended to serve. Moreover, philosophy instructors would no longer have the option of including logic lab assignments in their courses, as they could not reasonably expect every student to find time in his or her weekly schedule to visit the lab during its hours of operation. Hence the primary outcome supported by SSI funds is an expansion of the hours per week that the Logic lab is available to students.

In sum, the goal of Logic Lab Instructional Support Tutors project is the following:

-Support students' success in developing their critical thinking skills via courses offered by the Philosophy department.

The outcomes that evidence the realization of the goal are:

1. The Logic lab with SSI funding will expand the number of hours tutoring in logic and philosophy is available to students and the number of hours students can utilize the lab to complete logic and/or philosophy assignments.

2. Tutoring offered in the Logic lab will improve students' understanding of course material in philosophy and/or logic.

3. Tutoring offered in the Logic lab will improve students' ability to complete assignments in philosophy and/or logic courses.

# SSI-Funded Activities :

Funding of logic lab tutor salaries.

# Progress Toward Outcomes/Cumulative Findings::

First outcome achieved: Logic Lab open an average of 43 hours per week.

To assess progress towards the second and third outcomes, a survey was distributed to students who visited the Logic Lab.

Nine students filled out the survey in the fall 2019 quarter. Results are below.

## Question 1

Because of my visits to the logic lab, my understanding of the material in my philosophy course improved.

33.33% strongly agree, 66.66% agree

## Question 2

Because of my visits to the logic lab, my ability to complete my philosophy coursework (e.g. logic exercises, papers) improved.

33.33% strongly agree, 44.44% agree, 2.22% neither

#### Question 3

Because of my visits to the logic lab, I had helpful discussions with my philosophy classmates about the course material.

22.22% strongly agree, 11.11% agree, 55.55% neither, disagree 11.11%

### Question 4

The tutors in the logic lab were knowledgeable about the material in my philosophy course, and provided clear and helpful explanations.

#### 55.55% strongly agree, 44.44% agree

Students were also asked to provide any comments they had about their experience at the logic lab. The one comment provided was positive:

-I had a good understanding! [sic] The tutors were amazing.

#### Recommendations for Continuous Improvement Efforts: :

The results of the survey are in line with surveys conducted in previous years. In the view of those students who have visited the Logic Lab, the lab promotes their success with respect to their philosophy coursework.

The i-Pad sign-in system does not just serve record each student visit to the lab, but also the philosophy class a student was visiting the lab for help in. As expected, the highest percentage of a visits--41.2%--was for a logic class. The percentage of students visiting the lab for an introductory philosophy class was however just 10%. We hope to increase this figure by promoting the Logic Lab more aggressively to the instructors and students of these classes.

## Resources for Continuous Improvement Efforts:

No additional resources are needed.

# Challenges:

As always, it is nearly impossible to assess direct impacts of things like the Logic Lab, tutoring or Supplemental Instruction. We can't know what a student's grade or other success would have been had they not attended Logic Lab. And we can't know that if a student who failed had attended Logic Lab, that they would not have failed. We are forced to rely on our professional judgement that this sort of service has a significant benefit, and on student self-reports of satisfaction. Self-reports are notoriously unreliable, and response rates are very low. To some extent, this makes the whole assessment exercise a bit of a farce, or at least makes it yield information whose value is very likely not worth the effort it takes to gather it.

The most significant challenge we face in the Logic Lab is the same one shared by other similar resources: getting students to take advantage of the service in the first place. The department encourages faculty from all our courses to require, when it makes sense for the course, that their students visit the Logic Lab to complete an assignment. This is of some benefit in helping students to feel comfortable coming back for another visit, and to see the benefit of doing so.

#### **Budget Summary:**

Attached Files

SSI Annual Report Budget Summary Logic Lab 2019-20.xlsx Check-in/Utilization Data:

#### Feedback on Reporting:

The template provides a straightforward way to submit our SSI report. It does not seem there is anything that needs to be added.

Providing Department: Bachelor of Arts in Philosophy