

The Socratic Tutoring Center

A Proposal and Plan of Action for NVCC-Annandale

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The Purpose of the Tutoring Center

The roles of each unit in a University organization -- both academic and operational are unique, and thus to fulfill its task, an office such as the Tutoring Center should have a clear idea of its purpose, objectives, and measurable outcomes to which reasonable policies, processes, and methodologies can be directed.

The Tutoring Center's purpose is to help students learn how think clearly about the questions and challenges being put to them by their professors, and later by challenges in their personal paths in business and society.

Our objectives are thus not subject-bound -- it is not the Tutoring Center's goal to teach someone algebra or physics -- those are properly the responsibility of the graduate-degreed faculty and the students' themselves. The objective of the Tutoring Center is certainly not to help students complete their homework in a more speedy fashion nor to be a GPA enhancer. If this was the objective, the Tutoring Center could only advance such objectives to the detriment of learning and to the reduction of the value of the credentials offered by the University.¹ The University has two purposes in society:

1. To serve as signaling device to potential hiring agents that the bearers of the University credentials are more able and fitted to take on problems that require certain intellectual knowledge and ability than are their non-degreed competitors.
2. To provide a formal path through which human capital is maintained and upgraded and thus the social and political decision-making of the public is more fitted to the support and furtherance of liberty, justice, and human dignity.

¹ This may require further elaboration for skeptical readers. I will attempt to add a lemma as an appendix at the conclusion of the present writing.

In support of this mission, the Tutoring Center's role is perhaps best explored through a couple of productive analogies.

The Tutoring Center as a triage location for Intellectual Difficulties.

In this analogy, the tutors are like triage nurses, and are needed on hand to figure out the severity and location of problems in the student's thinking, providing first aid treatment, or routing the student to the process (internal or external to the center) that is best able to help solve the student's problem. See the flow chart, below.

The tutor has knowledge of the discipline in which the student is struggling, has a technique for getting the student to discover the kind of problem she, the student, is dealing with, and to admit to the tutor that she knows the solution and is either willing or unwilling to use that solution.

Eryximachus in Plato's "Symposium"(332) speaks of the role of the medical practitioner:

...and in this the art of medicine consists: for medicine may be regarded generally as the knowledge of the loves and desires of the body, and how to fill or empty them; and the good physician is able to separate fair love from foul, or to convert one into the other; and if he is a skillful practitioner, he knows how to eradicate and how to implant love, whichever is required, and he can reconcile the most hostile elements in the constitution, and make them friends.

Tutors are responsible for helping kindle good intellectual habits and purging those that work against the purposes of the University. Self-reliance, independence, and courage in scholarship must be promoted, while shiftlessness, dependence, and despair must be combated. Students fail at intellectual tasks in predictable ways. The tutoring staff ought to be experts

in seeing these and attending to them according to the best wisdom and techniques we have available.

The Tutoring Center as a place to get help with Intellectual Weight-lifting

The struggle of the learner is often that he does not know how much further down a dimly lit tunnel he must walk before he will have a bit of light to make the journey worth the while. In this sense, learning paths are followed out of faith that good comes from the struggle. But lingering doubts consist in whether it will be worth in the ex post benefit-cost analysis, or whether the person has the strength to see the learning path to its conclusion.

In a weight training process, it is common advice to lift with the assistance of a spotter -- someone who will keep you from hurting yourself when you try a level that is higher than your current ability. The spotter effectively diminishes the type I and type II errors associated with weight lifting:

1. Lifting less when you should lift more.
2. Lifting more when when you should lift less.

The economic costs of each of the first error is not growing the weight-lifter's strength as quickly as is healthy and possibly serving as a false ceiling on the weight-lifter's ability. The costs of the second type of error are associated with time-wasting injury and possibly a permanent ceiling to ability if the lifter damages her body catastrophically, possibly reducing the lifter to a strength less than previous to the exercise. The extreme forms of these injuries may reduce the abilities of the person to function normally and perhaps even lead to death.

The first type of error is accepted as rough assurance against the risks associated with the second type of error.

In learning processes, the first type of error is reflected in avoiding costs associated with the learning, at the

extreme giving up on school and possibly adopting a dour "can't do" world-view. The accepted truth becomes, 'I can't learn this.' or "Learning is not affordable given my budget." This pernicious view is believed by many and has social costs in the form of bounded aspirations for achievement in love, professional life, and political thought. Whereas if struggles are met in healthy measures, strength is built, and new challenges can be met with vigor and excitement.

The second type of error, going down a path one is not prepared to manage can lead to intellectual impairment and have deleterious effects on the willingness and ability to pursue learning in the future. The flunked-out student decides not to return to the academy, and carries a bitterness towards education along with the chip-on-the-shoulder he bears to his dead-end, menial job.

Educational paths are thus interwoven with economic paths. The person who is defeated by an algebra problem finds that the constants of life don't vary much with her efforts.

Just as the spotter aids the lifter by reducing the expected costs of the associated errors, the tutor and thus the tutoring center are an economical and essential part of the University.

And this points precisely to the role of the tutor.

The tutor's job is not to do the intellectual weight-lifting for the student. The tutor's job is help the student accept the weight-load that is appropriate for them, to aid students in being stronger self-questioners, so that the student has greater fortitude in learning even when they are not in the tutoring center.

Each student may struggle in different places, although, as an increasingly experienced professional, the tutor will learn to anticipate student errors and excuses and ask the right questions such that the student enters into agreement with the tutor's wisdom, even as the student

is discovering it for himself.

A weight-lifter may believe consciously or unconsciously that the spotter is bearing part of the weight, even though the spotter is placing no pressure on the barbell. A well-trained tutor may create a similar illusion if they are experienced in the techniques of eliciting student thoughtfulness.

Student: "You showed me the answer!"

Tutor: "No, I just asked the right questions. The answer was all you."

The main purpose of tutoring is not subject matter mastery -- this is beyond the scope of tutoring -- it is aiding the student in realizing that effective knowledge processes effectively lead to greater creative freedom and greater (more helpful and honest) self-judgment.

Strong (150) writes:

The ability to determine whether or not one's own understanding is accurate based on the overall coherence of one's interpretation is a very high-level, valuable intellectual skill.

Strong is reminding us that knowledge processes are valuable not merely in recalling memorized items, but continually discovering new pathways of organization and functionality. Learning's fruits exist at a meta-level beyond mere "facts" and give a thinker an ability to judge efficiency and efficacy of alternative mental constructs and to make reasoned and reasonable choices between yet further divergent intellectual opportunities.

Socratic Method as a Design Pattern

One of the great efficiencies of using Socratic Method is precisely its universality of application. There is no strong reason to believe that such discourse is not fitted for any particular content -- it is a technique that can be applied to any domain. Learning to use it effectively in physics is also likely to be helpful when discussing economics, but not from any similarity that theoretically exists between those disciplines. Alternative metaphors might be needed, but the self-reflecting pattern of question and answer -- the free inquiry between a teacher and a student, or between two teachers or two students, or a student and herself is the lesson.

In our Socratic Tutoring Center, the master tutor trains the junior tutors to learn to use the Socratic technique and apply it within the learning processes of tutor training. Then the tutors practice using it with each other to see how it can be used in the disciplines that they have domain knowledge.

By instantiating a thoughtful question-and-answer process, the tutor is modeling the behavior that the student needs to learn. The student cannot avoid this lesson if he is to find help in the tutoring center. "Just show me!" is not a reasonable demand that tutors can answer. It is this habit of non-answering, instead asking great questions that all the processes of the center must be geared towards.

The student returns to leisure and family business with a memory of the questions and how the answer seemed to emerge so effortlessly when the tutor's questions were closely attended. Although, the student may derive satisfaction from turning in complete homework for a particular class episode, not unlike the feeling that one gets from successfully dropping off the dry cleaning, it cannot compare to the self-realization that the student has brought the tutor home, and that the questioning is

something that can be done anywhere, anytime, all by oneself. Solutions may not be readily apparent, but there is an able process to which one can avail oneself.

Appendix 1: The Training Agenda

I propose that the training proceed along these lines (and approximate timeline).

1. Pre-hiring screening -- prospective tutors with the appropriate domain knowledge will be asked to do a mock-tutoring session. The master tutor will play the student while the tutoring supervisor scores the candidate. Candidates are evaluated on the clarity of their communication and their attitude and manner. So many of the best are invited to join the training.
2. The trainees will have to attain basic understanding and commitment to the Socratic technique before they leave probationary status. The training will proceed over a three-day period before classes begin, three sessions of three hours each, including time for Socratic dialogue, reading, reflective writing, and practice.

The syllabus for this will contain readings and exercises from Nosich(2009) and Strong(1997), working sample problems, and learning to navigate the tutoring decision chart (see below).

In the following week, tutor trainees will be required to receive a pass on three trials with the tutoring trainer and the supervisor. The trials seek to answer the following questions:

- * Is the tutor asking effective questions in a enthusiastic, supportive manner?
- * Does the tutor follow the tutoring decision chart and understand when and why to choose a different path to direct the student?
- * Does the tutor avoid contributing to a student's confusion or dependence?

If a tutor does not pass any of these trials, he will be required to take another hour of training with the tutoring trainer before resubmitting to the trial. A tutor trainee can only fail twice or will be dismissed.

3. Each tutor will be required to spend an hour a week towards becoming qualified in Applied Socratic Method in a subject they tutor. Each week they will spend three 20-minute sessions with another tutor working on thinking through the possible pitfalls that students might have when working a particular type of problem. In the Socratic mode, they should discuss if they've fully mapped the problem and are adequately able to diagnose particular intellectual mistakes. The tutors will participate in a monthly 3-hour session with the tutoring trainer to discuss as in a group how to use the Socratic method in that discipline.

4. Each semester the tutors should become qualified in another discipline that they tutor.

5. For tutors who have completed two semesters, they should be offered a master tutor course in which they study Plato's works, work on problems related to communicating the paradigm, and engage in reflective writing about how they would communicate this to the next generation of tutors using their own learning and practice as a base of knowledge.

6. These senior tutors who have taken the master class should lead their own subject area groups in the following semester.

7. After two semesters leading subject area groups, these master tutor candidates may lead their own master-tutor seminars.

In this manner, by the end of the first semester, all tutors will have received 9 hours of initial training, 16 hours of working with each other in a subject, and 12 hours with the tutor trainer discussing that subject. We also expect a great deal of learning about the technique as it is used during all their shifts.

Appendix 2: The Tutoring Trainer

The tasks of the tutoring trainer become clearer when the above paradigm and training agenda is established.

For each course for which an Applied Socratic Training will be offered, there will need to be a set of weekly questions for tutors to work thru and a monthly seminar based in the material of that course. To develop a single course, we should imagine that the tutoring trainer will need to spend time comparable to a student taking that course, although the goals are well-beyond what the mere enrollee of that course is expected, since the tutoring trainer must not just have a clear view of the material, but be able to effectively talk about finding ways to talk about it Socratic-style. For close readers of the last sentence will note that puts the tutoring trainer two levels of abstraction beyond the student-learner -- one level that the tutor must achieve beyond the student, and the level the tutor trainer must achieve beyond the tutor. The standard calculation is for a student to expect to spend 3 hours in lecture and another 9 hours of study outside of the classroom. In this manner, we get a 12 hour weekly commitment per class.

If we imagine the following schedule in training design:

Spring 2012:
Pre-calculus
Physics I
Chemistry I

Summer 2012:
Calc I
Physics II

Fall 2012
Calc II
Chem II
Master Tutor

We can see that such a schedule would be nearly full-

time.

I suggest that the tutoring trainer should be the first to go into each of the subject areas, but that tutors who have done two semesters and the master class should be expected to run the seminars in future years. Thus the tutor trainer would be a full-time position for 2 or 2.5 years at most at which time the position's planned obsolescence would arrive.

Appendix 3: Tutoring Decision Chart

References

Nosich, Gerald M. 2009. Learning to Think Things Through: A Guide to Critical Thinking Across the Curriculum. Upper Saddle River, NJ: Pearson-Prentice Hall.

Plato. "The Symposium". The Republic and Other Works. Translated by B. Jowett. Anchor Books Edition published 1973.

Strong, Michael. 1997. The Habit of Thought: From Socratic Seminars to Socratic Practice. Chapel Hill, NC: New View.