CATL Scholar Application
Project Description
"Argumentation Step by Step"

Critical Thinking classes are offered extensively in philosophy departments across the country, and Elon is no exception. Most of these classes, including mine, devote a significant portion of the material to understanding, evaluating, and constructing arguments. Recently, I have begun to develop a unique, innovative, learning-centered approach to this material – an approach that I believe holds several advantages over traditional pedagogies. Were I to be chosen as a CATL Scholar, I would use the considerable time and resources it would make available to me to develop the pedagogy more fully and to transform it into a web-based curriculum that could eventually be shared with instructors at other institutions.

Most critical textbooks – and there are literally hundreds of them – present an enormous amount of material: they explain dozens of fallacies, provide definitions for different kinds of arguments, perhaps even dabble in some formal logic. Thirty chapters later, the student has been exposed to a lot of information, but cannot possibly have *learned* any skills in a deep way. Rather than seeing critical thinking as a mass of technical distinctions and terms, I understand it as a practice – and more than that, as a practice that demands practice.

My approach (which I title "Argumentation Step-by-Step") omits most of the formal terms and jargon that frame traditional textbooks. Instead, it organizes the skills central to argumentative fluency into ten progressive, cumulative steps (moving from, for example, understanding the structure of arguments to learning how to determine whether arguments are persuasive). Students progress through those steps individually, and at their own pace; quizzes are not scheduled at predetermined times, but are rather given when the instructor believes that the student has demonstrated fluency in that particular skill. Moreover, students must

demonstrate that they are maintaining the skills over time (quizzes for step four explicitly require students to demonstrate fluency in the skills covered in steps one through three).

Critical Thinking instructors often proudly proclaim the usefulness of the material they are teaching, and surely they are right to do so: arguments are ubiquitous, and being able to analyze them well is an enormously valuable skill. However, the way that skill is taught often makes the potential for actually retaining it fairly limited. (How many students are really going to remember the names of 25 fallacies, much less be able to use them judiciously?) My approach doesn't tell students about critical thinking, or have them practice one technique briefly before moving on to the next. Instead, it has them practice the most central skills over and over, so that habits of thinking are inculcated. There is no doubt that such an approach teaches less material in total; there is also no doubt in my mind that it results in far more student learning (although I would like to subject that belief to more rigorous study, and am hoping that the CATL Scholar program would provide me the opportunity to do just that). Importantly, such an approach also centers the responsibility for learning squarely on the student her/himself, as grading is entirely dependent on how many steps the individual student completes.

I have taught three sections of Critical Thinking using this pedagogy, refining it each time (in addition, a colleague of mine has used the approach in his critical thinking class – so there have been four sections that have experienced it). In doing so, I have already written an instructor's manual and a student workbook. But running a one-room schoolhouse within the context of a university classroom is a fairly unusual undertaking (just imagine: a classroom where some students are taking quizzes, others are learning new material, others are honing their skills, while the instructor moves among them, providing evaluation and instruction on a just-in-time basis – this is a paradigmatic example of engaged learning!). There remain many facets of

the pedagogy that demand further exploration, analysis, and improvement, particularly if I hope, as I do, to make it readily available and appealing to other instructors and students.

As a CATL scholar, then, I would have two main goals. First, I would seek to continue to develop the strengths of this pedagogy, particularly by addressing the following questions (as well as others that will surely emerge):

- How will the move to a web-based curriculum open up more possibilities? (For example, one idea that I've already been exploring is the possibility of an interactive, virtual "neighborhood" where each student's progress is visualized as a house undergoing construction, thus enabling students to have an idea of their progress, both individually and collectively.)
- Is the approach feasible for instructors with different levels of expertise and ability?
- How could teaching assistants be utilized to further improve the learning outcomes? Are there other ways that students could be more involved with each other's learning?
- How could the curriculum be rendered sufficiently flexible so that instructors could use it as a small part of a larger course? How could the curriculum be rendered accessible to courses beyond philosophy?
- How effective is this pedagogy compared to others? (I would enlist CATL to help me devise some manageable studies designed to evaluate the comparative strengths of this pedagogy.)

Second, I would seek to develop a web-based version of this curriculum. This pedagogy not only rejects the particular critical thinking textbooks that already exist: it actually rejects the notion of a textbook altogether. Students learn the material directly from the instructor, usually in fairly small groups, and then spend time practicing the skills until they achieve fluency. The traditional publishing route is not going to be an effective way of sharing this approach, then – there's just not that much to print! Instead, I envision creating a website that will provide a variety of material for both students and instructors. Exercises and quizzes would be posted; a user-friendly means of keeping track of progress/grading would be developed; instructional material and supplementary advice for the instructor would be available; some form of discussion board would allow students to talk with each other about particular skills or problems; the virtual neighborhood would be integrated with the grading. In my two-year term as a CATL

scholar, I would probably be able to get such a web-based curriculum up and running at Elon, although the ultimate goal would be to share the curriculum beyond the university walls.

By the conclusion of my term as a CATL Scholar, I would hope to have created a fully developed, accessible, and relentlessly learning-centered pedagogy for teaching argumentation. I would also hope to have created a web-based pedagogical template that could be used as a platform for any curriculum that could be organized as a series of cumulative, progressive steps. This learning-centered approach has promise well beyond philosophy!

Budget

Because of my responsibilities as department chair, I would only be able to take advantage of some of the course releases available to me as a CATL Scholar. However, other aspects of the project will need significant funding, and so I would request that the funds available to me as a CATL Scholar be allocated in the following fashion:

Item	Cost (approx.)
Course release 2010-2011	4500
Course release 2011-2012	4600
Summer stipend 2011	4700
Stipend for TA's	2300
Website development	8000
Total	24100

A few details on the last two items: I will aim to have one teaching assistant in one section each year that I am a CATL Scholar. Such an arrangement will help me to explore multiple ways of providing individual, in-class evaluation of student work (the high demand for such evaluation often creates a logjam, which leaves students waiting for instructor attention for untenably long periods of time). Working with a TA would also give me the experience I need to provide some specific advice for instructors who have access to TA's and are interested in adopting my approach. I would expect that after the conclusion of my term as a CATL scholar, I

might well want to continue working with a TA, but could do so under the rubric of an independent study, or even independent research, where the TA's work would speak to their own interests as well as to the pedagogical needs of my class.

The web-based curriculum that I have described above is, I have been assured by members of Elon's Teaching and Learning Technologies department, feasible – but not simple. While TLT is interested in and capable of assisting me in some of the initial stages of the design, much of the work (the actual building of the site, plus some consulting to ensure that what is being built matches what potential instructors would need) would need to be outsourced. The sum set aside above should be sufficient to get a model of the web-based curriculum up and running for Elon's campus. However, I would almost certainly need additional funds to make it available and accessible to other institutions; thus, I would spend some of my time as a CATL Scholar seeking external funding to make that transition possible.

Timeline

My first year as a CATL Scholar would be devoted to researching and implementing any changes in the curriculum, plus initiating the creation of a web-based curriculum, enlisting the help of the TLT department and other resources as necessary. With luck, I would have a (probably incomplete) version of the web-based curriculum ready to pilot and study during the second year. The second year would also be devoted to studying the effectiveness of the pedagogy and applying for external grants to fund the work necessary to move from an Elon-only website to one that is available to instructors and students at other institutions.