

**Programs in Critical and Creative Thinking**

**University of Massachusetts Boston**

**Academic Quality Assessment and Development Review**

**Members of the Committee**

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**May, 2011**

On March 29, 2011 we served as the committee conducting the periodic Academic Quality and Assessment Review required by the university for the Critical and Creative Thinking Program. Prior to our time on campus we reviewed extensive print and online documents reporting on the status of the program prepared by the core faculty, Professors Blum, Millman and Smith and coordinated by program chair Peter Taylor with the assistance of Jeremy Szteiter, program assistant. In the course of the day, from 8:30 AM until 8:30 PM, we met with faculty from across campus, with administrators, including the appropriate deans and Provost Langley, as well as with students. We appreciate the careful preparation that the documents demonstrated and the reception by those who gave their time so we could best understand the program.

This report consists of four sections:

1. Students and Student Learning
2. Faculty Quality and Productivity
3. Possible futures
4. Observations and recommendations.

### **Students and Student Learning**

In evaluating student learning that occurs through the CCT program, we focused our attention on:

- the knowledge, competencies, and values that are appropriate to the academic program
- the instructional methodologies and content delivery systems demonstrated; and
- student learning outcomes and their assessment.

Our consideration led to the recommendations that appear in the last section of this report.

#### 1) Knowledge, skills, competencies, and values appropriate to the academic program.

We found considerable evidence that the knowledge, competencies, and values associated with interdisciplinarity, collaborative problem-solving, reflective analysis and practice, and social justice is being well met through the CCT program.

- An area of concern that we would recommend addressing relates to clearly defining the program dimensions of critical and creative thinking and aligning course goals and learning outcomes more intentionally across the curriculum. We also note that while student feedback on the program was exceptionally positive, there were recurring concerns raised about:
  - the number of electives available,
  - the advising system and need for more structured advising,
  - That more attention be given to developing students research skills and writing skills,
  - and issues relate to on-line course delivery – one comment in particular stood out: a student noted that “collaboration was difficult with an on line format.” This last point highlights the challenges of teaching collaborative knowledge generation processes through an on-line format. We see these student concerns as valid ones and recommend that they be addressed by program faculty and staff.

Coherence and clarity about the knowledge, competencies, and values that are foundational to the academic program may become a concern as the program develops new curricular options. Currently there are a number of students who are not matriculated into the CCT MA or Certificate program who are taking CCT courses. In some cases, these students apply and are accepted into either the MA or Certificate program. There are also students who enroll in the Certificate program. At the core of the Program is the MA option, which includes two tracks, the most recent is the track called “Science in a Complex World.” As the program options continue to expand, it will be important to maintain curricular coherence such that there are foundational courses that provide the core knowledge, competencies, and values for CCT for all students who participate in any of the course or degree options provided.

## 2) Instructional methodologies and content delivery systems.

The CCT program has demonstrated remarkable innovation in providing multiple course delivery options for its students. Students have the option, through a number of courses, to take courses that are delivered face-to-face, courses that are delivered where some students are face-to-face and others participate at a distance through the use of Skype, and other courses that are entirely on-line. This kind of variety in course delivery can be very effective for teaching and learning for students with a diversity of learning styles and complex personal circumstances.

We were also extremely impressed by the testimonials we heard from students who had participated in on-line courses and with the faculty who we met (in person and virtually) during our program review visit. Additionally, we were pleased to witness the reflective, self-critique by on-line faculty of their pedagogical practices and analysis of how to improve their teaching and improve student learning. Perhaps this is to be expected given the nature of the content; however, this kind of reflective critique we find rarely and is often not encouraged or valued for faculty.

As the CCT program deepens its relationship with University College the trend has been toward an increase in the number of on-line courses. From a student learning perspective, we have some concerns that a predominance of on-line courses may not be the most effective format for student learning for a diversity of learners. We also have concerns, raised in the self-study, that there is an increase in on-line courses taught by faculty without doctorates, about the quality of instruction and depth of student learning.

As CCT becomes more connected structurally (course offerings and resource allocation) to University College, we strongly recommend that University College perform data-analysis and evaluative functions appropriate to an on-line, profit driven administrative unit of the university. Based on the experiences of similar units nationally, there needs to be better data, and more transparency of data, related to costs, student diversity (racial, ethnic, cultural), and student success. It will be important to understand whether on-line courses are being enrolled in by more diverse students, what exactly their program options (certificate or MA) cost to complete in comparison to the non on-line options, and the levels of student success (completion). It should be a standard operating function of University College to provide the CCT program (and other programs) ongoing data analysis related to these factors.

## 3) Student learning outcomes and their assessment.

There have been significant efforts made to allow students to demonstrate the knowledge, competencies, and values shaped by the program. These occur through individual course assessments throughout the program, through the close advising and mentoring that is embedded in the program, and most directly through a capstone experience and an associated Synthesis Project. There is also an exit interview that is conducted as part of the program structure. These mechanisms are all indicative of the importance that the program staff and faculty place on student learning. Going forward, we would recommend that the faculty

and staff direct efforts to articulating learning outcomes for individual courses and for the program and implementing a portfolio (perhaps electronic) through which all students would provide evidence of learning related to the articulated learning outcomes. This kind of assessment would be a more effective way of determining whether students are meeting learning outcomes and it would be an assessment approach consistent with the content and values of the program. We suspect that with the innovation demonstrated by the faculty and staff, that the CCT program could provide a model for student learning outcomes assessment for the CEHD and for the University as a whole.

### **Faculty Quality and Productivity**

When it comes to assessing faculty quality and productivity, some qualifications are in order as the structure of this program is rather unique. The faculty associated with the Critical and Creative Thinking (CCT) program fall into three broad categories: those recruited with explicit responsibilities within the program, faculty from other departments with overlapping research or pedagogical interests and part-time faculty, a number of whom bring specialized skills to the instruction. The core faculty is unusually small with only one full professor, Prof. Peter Taylor, and a senior lecturer, Dr. Nina Greenwald, contained entirely within CCT. The remaining members of the full-time faculty, Professors Blum, Millman and Smith, are all housed in other departments within the College of Liberal Arts (CLA), though two of these senior members were hired with defined affiliation (50% teaching load) to the CCT program. Also, as the program has increasingly migrated on-line, it seems reasonable to include in our assessment a recently hired instructor, Jeremy Szteiter (supported with funds from University College), who is responsible for both on-line curricular and outreach aspects of the program. The review team also met with a number of innovative part-time instructors who handle the online courses run through the University College, formerly CCDE. Lastly, the program lists a number of STEM-related faculty members who appear to play a limited role at present but could become more engaged as the fledgling Science in a Changing World (SICW) program takes shape. Despite being quite unconventional, this mix appears to be surprisingly effective as noted elsewhere in the contexts of students' satisfaction and overall program quality and success.

As we outline below, our response to the questions pertaining to faculty credentials, experience, outreach both within and without the institution, and quality of instruction are emphatically positive. The program has adapted effectively to accommodate the changing composition of the faculty as well as evolution in the (primary) mode of delivery of the instruction. In this respect, both policies and expectations have been adjusted to be consistent. However, our major concern is that there appears to be little institutional commitment to the program as reflected in faculty investment and so, here again, sustainability is in question.

It was clear to the review committee that this program has always been under-resourced and its responses have, since its inception, been driven by research interests among its faculty. This continues to true as the director, Peter Taylor, is pivotal to all facets of the program. His long-standing interest in science (ecology and environmental studies) as well as its interpretation in a societal context is reflected in the recent trajectory of the program, especially the evolving SICW component. His research in this and other areas is significant and he has very active both in organizing as well as participating in regional and national workshops. At the University level, his academic outreach has been exceptional and he has provided a number of institutional faculty development opportunities encompassing the CCT theme over the years. As far as his teaching is concerned, it appears sufficient to say that his success in developing and teaching a broad array of courses was recognized in 2009 with the institutional Chancellor's Award for Distinguished Teaching, awarded each year to a single faculty member.

Nina Greenwald is the other exclusive member of the CCT program and she, too, brings some unique skills to the classroom. The classes she leads reflect her interests in creative and critical thinking,

problem-based learning and gifted education. She is an elected member of Danforth Associates of New England, which consists of individuals distinguished by their teaching. The review team attended part of her Creative Thinking class where the consequences and benefits of these abilities were patently clear. However, the self-study and on-site interviews suggest that her continued participation as a full-time member of the program have become increasingly uncertain (due to institutional factors), which brings us back to the issue of the longer term viability of the program, at least in its current form.

The remaining full-time faculty consists of distinguished members of other departments: Profs. Blum and Millman in Philosophy and Prof. Smith in Psychology. They each bring specific expertise and skills to the CCT program and teach well-structured, and periodically offered, courses in keeping with these interests. They appear to have assisted in the CCT program development despite their responsibilities in their home departments, e.g. Prof. Millman is the current chair of his department, and are clearly dedicated to its continued success.

The online component of the CCT program has expanded in recent years largely in response to available resources. The increased interaction with the University College (formerly CCDE) led to funding for hiring Jeremy Szteiter, a graduate of the CCT program, who now serves as the Assistant Coordinator. Besides teaching a number of the online classes, his responsibilities include organizing community events which allow program faculty, full-time and part-time, to share their expertise with a larger network of individuals from both on- and off-campus constituencies. Once again, the review team was able to spend time at one of these events and came away impressed with

- the quality and creativity of the part-time faculty involved with the program.
- the enthusiasm for the program expressed by former students as well as the life-long learning skills they had taken away from it.
- the effective use of technology in promoting off-campus participation in these events.

In summary, it is fair to say that the sheer dedication of the faculty involved is possibly the most important factor in sustaining the CCT program, though the demands placed on them, as a consequence, are not conducive to long-term sustainability.

### **Possible Futures**

The review committee reiterates its belief that the CCT program provides an extraordinarily valuable contribution to the education of students at UMB and to the mission of the campus. The quality of participating faculty, innovative instructional activities, a robust and thoughtful curriculum, and an indispensable approach to learning and thinking makes this program one to treasure. But, as we have observed throughout this review, the lack of current resources and the overall meager level of support provided by the university over the program's long history (and noted in earlier AQAD reviews) raises some significant questions about the program's future viability and sustainability.

In this section we outline our understanding of the current situation of the program and identify a number of possible options raised in the self study and comment on them. In our conversations with participating faculty and students, and after a careful reading of the program's self-study, it is clear that many good reasons exist why the program should continue and be expanded. To some extent, the viability of the program has been improved by some recent modest developments and initiatives – and these have been noted in the self-study. It is also clear that the goals and purpose of the initial mission of the program have become more, not less, relevant, and that the existence of such a program reflects the growing value and importance of cross-disciplinary and interdisciplinary work in our institutions of higher education. Perhaps, more importantly, the recognition of the value of critical and creative thinking to a range of

occupations and skills, to economic development in an increasingly creative and high-skill economy, and to the understanding of the social impacts of science and technology, are all absolutely necessary educational and societal goals.

That said, however, there remain some questions about the future of the program in an era of very constrained resources and with limited faculty participation.

As noted in the self-report, a number of recent developments have increased the ability of the program to move forward. In particular, the following seem to us to be important positive developments:

- The creation of the Science in a Changing World (SICW) track enables students to study a range of issues that have become increasingly pertinent as scientific literacy becomes indispensable to the civic culture, and the assessment of science and technology's impact on the social world critical in the age of global warming and social networking. This track has also increased the number of faculty and courses who are linked to the program and will provide a valuable resource for both students and faculty.
- The link to University College. The Certificate program and the ability of students to take courses on-line, face-to-face, or in some hybrid form using teleconferencing, etc. broadens the potential market (and marketing) for the program. It also provides much needed resources by creating funds that have been used for a part-time administrative assistant and support for administrative supplies and program expenses.
- The Program Director's creation of a number of cross-program and cross-college courses on reflective thinking and science in its social context. This increases the program's visibility within the campus and provides intellectual and pedagogical connections across a range of disciplines.
- Providing core courses and electives over a set academic cycle. This improves the availability of courses for students and strengthens the ability of students to complete their program.

Taken together these are all positive developments. The review committee does, however, share the concern expressed by Taylor and other faculty that heavy emphasis on using UC faculty and on-line courses raises some questions about the stability and nature of a program predominantly taught by adjuncts. We also wonder, absent further resources, whether even these developments can insure the continuity of the program.

In the light of comments about the future in the self-study document, and as a result of our discussions during our visit to the program, we think it appropriate that we comment on the scenarios put forth:

1. *The Program be phased out.*

Comment:

We were surprised to see this as one of the possible future scenarios provided in the self-study, and we recognize the honesty and concern that prompts such a radical position. In discussion, it was clear that the faculty associated with the program have serious doubts about the future without any further resource commitment by the university administration. It was also clear to us that both faculty and students want to see the program continue but are not willing to allow a

continuation of an unsatisfactory *status quo*. In our view, this Program is far too valuable to the campus be phase out. Everything that was presented to the review committee by students, faculty and administrators highlighted the value of the program. We also feel very strongly that this program provides a unique opportunity for students and faculty to explore key and timely issues that are absolutely vital to understanding economic development, social cohesion, innovation and the necessary components for a meaningful civic culture. CCT could be a signature activity of the university and, as we understand it, central to the stated mission of the campus.

2. *Continue to develop the relationship with CCDE/UC and build the online components of the graduate certificate program both as a stand-alone certificate and as part of the master's in CCT.*

Comment:

This relationship has provided students to the program and much needed resources. If this is combined with an expansion of the SICW track, the review committee sees real possibilities for the continued growth of the masters. This can combine the potential provided by the LTET M.Ed. track with that of the SICW. This scenario would require few additional resources and could be virtually self-financing. We believe that the development of the SICW would be valuable. We have concerns, however, about the commitment of faculty teaching as adjuncts and on-line and the real and inestimable value of face-to-face interaction with students. The latter is critically important to a program such as this. The subject matter, our discussions with students, and our observation of one class leads us to the conclusion that the program would have great difficulty in maintaining the quality and uniqueness it now presents if it was taught only through on-line courses. That said, some continued and expanded on-line component would not necessarily be detrimental to the continued success of the program.

3. *Move Program under CCDE/UC.*

Comment:

This centralizes administrative control under UC and eventually moves all courses into on-line status. This could allow the SICW track to grow and would avoid problems when current faculty retire or are on leave. Courses could still be taught by adjunct faculty through CCDE/UC. Growth of the SICW track could be done over a relatively long period and require few additional resources. Our concern with quality and pedagogy also apply to this option. We would be concerned that, despite some changes in academic values and views, placing the program under the administrative control of CCDE/UC would further marginalize a critical interdisciplinary program, even with current core program faculty governance. Faculty and students still tend to think of on-line education as not quite part of the campus and the important impact of the program's ideas on faculty and students in other disciplines and colleges may be lost.

4. *Phase out CCT and build SICW as the core of the Masters.*

Comment:

This option has the advantage of building on a critical area and leverages Taylor's (as a key faculty member) current research and pedagogical interests. It would reframe the program and help develop long-term relationships with other disciplines and departments, remove a worrying dependency on current faculty from psychology and philosophy (currently critical to the CCT masters) while retaining the option for other courses and faculty to teach in the newly expanded

area. Building around the track *Science in a Changing World* would be, as we have noted, an attractive option. Student interest in this area is likely to be strong, it provides important educational curricula in an arena that is becoming increasingly important, and it speaks to concerns about scientific literacy and technical knowledge for the non-scientist. It also opens up possibilities for greater cross-disciplinary and interdisciplinary collaboration with other departments in the university.

If the decision is made to move in this direction the implications of losing the CCT potential should be considered, and we suggest in our final recommendation at the end of this report one aspect of potential impact.

5. *Provide additional resources and grow both CCT and SICW*

Comment:

This option would expand the current activities and resources available to the CCT program and add resources that would help build the SICW track without diminishing the role of the CCT as one of two cores in the masters. The relationship with CCDE/UC could continue in its present form but this option would avoid concerns about quality, coherence and marginalization of the program. To achieve this goal it would be necessary to provide at least one new faculty line. With such a position the continuation of the program would not be dependent on current core faculty, the SICW track could be built without negative impact on the existing core, faculty resources would be available for insuring that students complete the program (especially the capstone project) in a timely fashion, and the current faculty and students would be re-energized. We hasten to add that there are other resource limitations, including space, and a serious question of appropriate placement within the university.

### **Observations and Recommendations.**

In the course of our day the program was described as a “gem.” There are few programs nationally that focus explicitly on critical and creative thinking. We believe that this program should be nurtured and supported and used to make a distinctive mark on the University. Most of our subsequent observations and recommendations are in support of this first observation. Simply put, the entire review team was astounded as to what this program has been able to accomplish, the quality and innovative teaching and learning that occurs in the classroom and on-line, the co-curricular learning networks of students, faculty, and alumni, and the “outreach” done to advance collaborative knowledge generation and reflective practice among faculty across the institution, with such meager institutional support. We were also in agreement that this quality and innovation is **not sustainable** under the current set of circumstances. We make these recommendations fully aware of the historical context of the CCT program at the University, which could be described as a lack of nurturing, if not neglect.

We could not help but be deeply concerned with the recurrence of recommendations of ways to improve, expand, and deepen the program amidst apparent unresponsiveness by the institution in the past at any level to address the concerns raised in two previous AQUAD reviews spanning nearly two decades. We hope our recommendations fare better. While it is not a required part of the process we respectfully asked to be informed of the outcomes of our recommendations.

1. **Housing the Program.** Reconsideration must be given as to where the program is housed. It currently is within Curriculum and Teaching in the College of Education. This appears to be the wrong placement for several reasons. First, critical and creative thinking as a concept does not belong to one discipline or to one department. Placing the program in a department does not send



the message to faculty across campus that they should think about on how critical thinking and creative thinking are manifested in their disciplines. Second, it is placed in a department that does not have the resources to support the program and it seems that the relevance of the placement of the program there has not been clear to faculty and leadership in education. The structural location has marginalized the program and led to inadequate resources to support it appropriately. At a time when higher education institutions globally are focusing attention on interdisciplinarity, it is our view that it is overdue for the University to prioritize a program like CCT and to locate it prominently at the institution.

Given the potential university wide role for the program we recommend strongly that the University and the Provost consider housing the program in the Provost's office. This placement would give the program entree to work across campus and the respect and recognition that the program needs that cannot come from a connection with one department.

2. **Affiliation with University College.** The program's affiliation with continuing education, "UC," is growing and the primary support of resources for the program. The more this participation grows, the more resources will come to the program. We agree that there is a place for the work of this program in continuing education, and it is likely to continue even with the arrival of a new dean, but the role within the core academic mission needs to be nurtured. Just as it should not be seen as a program in Curriculum and Teaching, it should not be seen as a continuing education program. This will impact negatively on the acceptance and use of the program across campus.
3. **Resources: Faculty.** The program needs dedicated faculty. We express a concern that there is a shift to more on-line courses taught through University College, and that there are also more faculty who are teaching those courses who do not have doctorates. In addition to this issue, we are particularly concerned with the small number of faculty whose full-time lines are fully or partially dedicated to the program. Most of the sustainability of the program falls on the shoulders of the Program Director, and while there is a committed and passionate group of faculty from disciplines mostly in the College of Liberal Arts, it is apparent that there is not a sufficient core group of faculty supported institutionally to provide ongoing, quality instruction and advising for the students in the program.
4. **Resources: Space.** The physical space provided for the program office (which also served as an office for two faculty)— is where we met for most of our review. A number of students commented in their feedback that they were concerned that the program is under resourced, which would be readily apparent in a visit to the program office. The physical space provided to the program for teaching and learning is a statement about the commitment of the university to the program. Access to classrooms that foster interaction is especially important for a program like this. This may be a larger concern for the campus as a whole, but for the purpose of this review the lack of seminar space is an indication of the lack of appropriate resources needed to foster deeper student learning in a program particularly dependent on student interaction.
5. **Program Focus.** While there are some concerns about completion rates for both the certificate program and the Masters program, our recommendations for location does not suggest the abandonment of these programs but we recommend that they be nurtured with new resources, clear support from University and College leadership, and active recruitment of students. In fact the science piece of the program may be, at the moment, the strongest piece. To effectively continue with a variety of tracks requires a review of the cohesiveness of the programs housed under CCT. What is it that binds them together? A common mission? A core of courses? More attention is needed here.

6. **Critical and Creative thinking as a Potential Centerpiece.** Finally, in the course of nurturing the program we believe it is important to examine the role and relevance of critical and creative thinking, including imaginative thinking, in all programs at the University. Critical and creative thinking plays out differently in different disciplines. Critical and creative thinking do not have the same standards, protocols, or methodologies in the sciences that they do in history or the arts. Nevertheless the core elements are common as students look to be clear about the reasons for conclusions they reach and are ready to test their conclusions in a community of inquiry with other students and faculty. Even more basically, if the institution chooses to, it can use the presence of this program to position itself as a leader in preparing graduates to be active and involved participants in a democracy where critical and creative thinking are essential qualities. These qualities cannot be assumed to be present without their nurturing and the University of Massachusetts, Boston is in a position to be a leader in this regard given the presence of this program.

We appreciate the opportunity to serve the University, its faculty, and its students in this role.