Section 1: Initial Goals and Intended Outcomes

The goal of Georgia State University’s Quality Enhancement Plan (QEP), Critical Thinking through Writing (CTW), is to increase our baccalaureate students’ performance on two of the University’s general education learning outcomes – critical thinking and written communication – as evidenced in their academic major.

One of the primary aims of undergraduate education is to develop citizens who are able to engage in critical thinking and clear writing, and major degree programs play a critical role in the development of these abilities. The CTW Initiative was developed to encourage a university-wide transformation of undergraduate instructional practices and to improve student learning, and it has done so in a manner that is virtually unparalleled among large research institutions.

Over the past five years, the GSU community has worked to enhance critical thinking and writing through the development of major-specific Critical Thinking through Writing courses. Beginning in the fall of 2009 and thereafter, all undergraduate students enrolling at GSU have been required to take two CTW courses in their major area of study in order to graduate. Each course is designed by the major department and approved by the Undergraduate Assessment Committee (formerly the General Education Assessment Subcommittee), a subcommittee of the University Senate’s Committee on Academic Programs. To receive approval, a course must require critical-thinking-centered writing assignments that address issues relevant to the program of study. More specifically, to receive CTW designation for a course, the program must prove that the course will:

1. incorporate active learning strategies, coupled with short, frequent, critical-thinking focused assignments that require written responses,
2. engage students in the practices of critical thinking and writing continuously throughout the semester
3. provide students with more effective feedback, and
4. assess student development.

CTW assignments are designed to align with the University’s definition of critical thinking, a “wide range of cognitive skills and intellectual dispositions needed to effectively identify, analyze, evaluate arguments and truth claims; to discover and overcome personal prejudices; to formulate and present convincing reasons in support of conclusions; and to make reasonable, intelligent decisions about what to believe and what to do” (Bassham, Irwin, Nardone & Wallace, 2005, p. 1). Then they are tailored to reflect program-specific
critical thinking definitions, thus protecting the nuances of critical thinking within the disciplines and addressing the expectations of the university. To promote the incorporation of this type of active learning assignments and to allow for more detailed instructor feedback, we limited the student-to-instructor ratio in CTW courses to 25:1.

Assessment of the CTW initiative’s impact on student learning has been conducted at the program level. In 2008/2009, 52 programs developed assessment strategies, and since the official start of the CTW initiative in 2009/2010, CTW program representatives (Ambassadors) have collected data from all CTW courses and reported that data in annual CTW reports. Those reports have, in turn, been assessed by our Undergraduate Assessment Committee and have been returned to the CTW Ambassadors with recommendations for continued improvement.

Over the past 5 years, the Critical Thinking through Writing Initiative has offered 2,042 sections of program-based CTW courses to 40,824 students. The university has invested over $1.67 million in direct funding to faculty and graduate students across the university, and CTW has transformed GSU’s pedagogy and assessment practices in every program. Currently, we offer a total of 126 CTW designated courses. As CTW has developed, it has become a driving force not just in undergraduate education, but also in faculty and graduate student development.

Section 2: Changes to QEP

Changes to the administration of our QEP occurred at two levels: university and program. Because our QEP was embedded within the disciplines, most of the changes occurred at the program level, and on a relatively small, but somewhat continuous scale. University-wide changes largely were policy related and addressed the needs of the growing initiative.

Program Changes

Program changes have occurred continuously over the last 5 years, and each program has been responsible for refining its individual CTW initiatives as needed. For the purposes of CTW data collection and reporting, we divided departments into 52 program areas, some programs decided to report by major area of study, and some decided to report by department. Each program is represented by at least 1 CTW Ambassador who is responsible for collecting data and reporting information related CTW designated courses. The Ambassadors reported the following changes to their programmatic CTW initiatives based on assessment findings.

<table>
<thead>
<tr>
<th>Years 2008-2013</th>
<th>Programmatic Changes Based on Assessment Findings (Out of 52 Programs)</th>
</tr>
</thead>
</table>
| 2008/2009 Pilot Year | Established Individual Frameworks for CTW  
Established Courses, Definitions, Assignments, and Rubrics. Ten programs added capstone courses for CTW, and 20 others revised 56 existing courses to such an extent that they required new course numbers and |

Georgia State University QEP Interim Report  2
descriptions. All programs revised their curriculum to include the two-course CTW requirement.

<table>
<thead>
<tr>
<th>Year</th>
<th>Revised Programmatic Definition of Critical Thinking</th>
<th>Revised Rubrics</th>
<th>Revised Assignments</th>
</tr>
</thead>
<tbody>
<tr>
<td>2009/2010</td>
<td>22%</td>
<td>16%</td>
<td>2%</td>
</tr>
<tr>
<td>2010/2011</td>
<td>26%</td>
<td>16%</td>
<td>7%</td>
</tr>
<tr>
<td>2011/2012</td>
<td>18%</td>
<td>16%</td>
<td>7%</td>
</tr>
<tr>
<td>2012/2013</td>
<td>44%</td>
<td>29%</td>
<td>6%</td>
</tr>
</tbody>
</table>

2009/2010 (first official year)

22% Revised Programmatic Definition of Critical Thinking
16% Revised Rubrics
2% Revised Assignments

2010/2011

26% Revised Rubrics
16% Revised Assignments
7 CTW Course Added
13 CTW Courses Removed

2011/2012

18% Revised Rubrics
16% Revised Assignments
7% Started a Programmatic Writing Support Initiative
7% Changed Data Collection Methods
6 CTW Courses Added
1 CTW Course Removed

2012/2013

44% Revised Assignments
29% Revised Rubrics
6 CTW Courses Added

University-Wide Changes

Program changes addressed the needs of students at an individual level, so university-wide changes were infrequent and established CTW policy. The policies below were developed by the CTW leadership team (composed of Faculty, Administrators, and Assessment Directors) and are intended both to protect the integrity of the initiative and to ensure that no student is unnecessarily impeded by the CTW graduation requirement.

<table>
<thead>
<tr>
<th>University-Wide Policy Additions (2009-2012)</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Addition/Modification/Removal of CTW course designation</td>
<td>Administrators of the CTW program are responsible for monitoring changes in each academic department’s CTW course offerings. This will be accomplished by the maintenance of a catalog of all active CTW courses approved for each degree major and their effective date of approval. If departments intend to modify their CTW course offerings—for example, remove the CTW designation from an approved CTW course—they need to notify the CTW Director of such action and its effective date. Departments are required to review and update all University Catalog information regarding its CTW courses annually at a minimum to assure its accuracy. Articulation agreements for course equivalency with regard to transfer credits also should be reviewed annually.</td>
</tr>
<tr>
<td>Appeals for Deviation from CTW Graduation Requirement</td>
<td>Section 1430 of the Undergraduate Catalog states that effective for students entering fall term 2009 and thereafter, all students seeking baccalaureate degrees are required to pass two critical thinking through writing (CTW) courses in their majors. If a student wishes to appeal this policy, they should follow the process for student petitions of University-level academic policies detailed in Section 1050.8, part IV of the Undergraduate Catalog. Appeals of all graduation requirements (including CTW) are heard by the Assistant Vice President for Student Retention. Petitions must be submitted in writing and are available in the Student Advisement Center.</td>
</tr>
</tbody>
</table>
Appeals for Deviation from Transfer Policy

Section 1430 of the Undergraduate Catalog states that CTW classes are unique to Georgia State University and therefore students cannot transfer equivalent credit from other universities. If a student wishes to appeal this policy, they should appeal to the Department Chair of the major they are completing at Georgia State for resolution of this matter. The Department Chair will evaluate the syllabus and learning outcomes of the transferred course to assess whether the content and structure of the course mirrors one of the CTW classes required in the major at Georgia State. The Department Chair will communicate with the Office of Academic Assistance by email if the appeal of the transfer policy detailed in Section 1430 is approved for the student. If approved, the Office of Academic Assistance will make sure the CTW credit is properly reflected on the student’s academic record.

Transfer Policy

The majority, but not all, of the CTW courses evolved from established courses in the major that were previously equivalent to courses offered at other institutions. However, CTW courses at GSU are built upon an approved university-wide definition of critical thinking and undergo the approval process described previously in this report. Thus, to assure the integrity of the CTW graduation requirement and consistency in the evaluation of course equivalency, all courses that have been directly equated to GSU courses designated as CTW effective fall 2010 will be equated to upper division electives for that subject area (i.e., as 3099 or 4099). Transfer credits should no longer be automatically equated to CTW courses, as the course content and structure are normally specific to Georgia State (see University Catalog Section 1430), and equivalencies to CTW courses are rare.

Tracking CTW Course Designations

Administrators of the CTW program are responsible for monitoring changes in each academic department's CTW course offerings. This will be accomplished by the maintenance of a catalog of all active CTW courses approved for each degree major and their effective date of approval. If departments intend to modify their CTW course offerings—for example, remove the CTW designation from an approved CTW course—they need to notify the CTW Director of such action and its effective date. Departments are required to review and update all University Catalog information regarding its CTW courses annually at a minimum to assure its accuracy. Articulation agreements for course equivalency with regard to transfer credits also should be reviewed annually.

In addition to adopting new policies related to the CTW graduation requirement, the CTW initiative has modified its training in response to programmatic need. When we first began, we adopted a train-the-trainer model for faculty and graduate students teaching and assisting the CTW courses. We maintain that model for faculty, with the exception of an annual workshop and assessment training; however, we have started offering university-wide training sessions for the graduate students.

Through discussions with Ambassadors, we determined that many of the graduate students working with CTW courses were not experienced with tutoring, and CTW Ambassadors struggled to adequately train both faculty and graduate students. In response, the CTW Directors worked with the Writing Across the Curriculum program and the Center for Instructional Innovation to offer two all-day training workshops for graduate assistants, which are designed to prepare CTW graduate assistants for working with student writing and thinking. They also worked with programs across the university to create a bi-monthly, hour-long training sessions which CTW graduate assistants attended throughout the year.
Section 3: Student Impact, Unanticipated Outcomes, and Achievement of Goals

Student Impact

When Georgia State University chose the Critical Thinking through Writing Initiative for our QEP, we envisioned it as a “grass roots” initiative, which would allow each discipline to determine the most effective way of teaching and assessing its students. As such, we did not create a single, overarching rubric to assess student improvement. Instead, we encouraged programs to create their own rubrics to use as a part of embedded assessment.

Each year, CTW Ambassadors report on their program assessments of CTW to the Undergraduate Assessment Committee. In these reports, Ambassadors have tracked significant changes to their programs since the inception of the CTW initiative, primarily focusing on student improvement. Over the past five years, Ambassadors have reported continuous improvement in student achievement. According to their annual CTW reports from 2008/09-2012/13, 88% of programs (46 out of 52) perceived student improvement that they associate with the work done in CTW courses. More impressive, however, is that 70% of the programs that report student improvement base their findings on concrete evidence of student development, gathered from embedded assessment. The percentage of student improvement noted in programmatic assessment reports has steadily climbed since the 2008/2009 pilot year, from 8 of 27 pilot programs reporting mostly anecdotal evidence of student improvement, to 39 of 52 programs reporting student improvement as measured by programmatic rubrics. Over time and evolving assessment models, all but four of our programs have seen improvement in student critical thinking and writing.

Figure 1: Number of Programs Reporting Student Improvement (out of 52)
The individual programs did an excellent job of designing assessment plans and of monitoring student improvement in their CTW courses. CTW assessment reports consistently had 100% reporting rates and widespread university involvement in assessment. While the reporting across programs was not always consistent in quality or completeness, every program reported some information every year. Because we wanted a broad-based assessment strategy for CTW, we decided early in the process not to assess the initiative from the top-down; however, as we approached the end of our first five years, we decided to attempt to assess the global impact of CTW on student improvement. As a result, during the 2012/2013 academic year, CTW Directors worked with the University Directors of Assessment to create a university-level, critical-thinking rubric. In the summer of 2013, we applied the rubric to 200 randomly selected CTW papers and 200 pre-CTW papers (150 papers written before 2009 and 50 freshman composition papers from spring 2013) to see if we could determine a change over time. A group of five, experienced CTW graduate writing consultants assessed these papers blindly, and we determined that, using the university-level rubric, the writing consultants were able to distinguish key improvements in the CTW papers.

Referring to a rubric that rated thesis, reasoning, organization, conclusion, and overall quality on a scale of 1 (beginning) to 4 (advanced), the CTW consultants reviewed CTW and non-CTW assignments ranging in length from 1 paragraph to 15 pages. The consultants showed a clear preference for longer CTW written assignments (>3 pages), they scored an average of 3 vs. 2.3 for the longer pre-CTW papers, but they also rated shorter CTW work at almost the same level as longer pre-CTW work, 2.4 out of 4, so that CTW writing samples under three pages were scoring a bit better than pre-CTW full-length essays. CTW papers consistently scored a level of 4 (advanced) more often than the pre-CTW papers. CTW papers scored a level of advanced 10% more often than pre-CTW papers in the areas of Thesis, Reasoning, and Conclusions. CTW work scored advanced 17% more often in the Organization category, with 25% of CTW papers scoring advanced compared to only 8% of pre-CTW papers. In the Overall quality category, 65% of CTW writing scored a 3 or higher compared to 56% of pre-CTW writing.

These results illustrate positive change at the university level. However, we continue to feel that the generalized rubric missed many of the nuances that the individual program rubrics examined and that the programmatic reviews have been more successful in capturing student learning than this generalized, university assessment.

**Student Perception of Impact**

Student surveys also show levels of perceived improvement in some areas of critical thinking. Results from the National Survey of Student Engagement illustrate modest improvements in student perception of development in key areas related to the Written Communication and Critical Thinking learning outcomes.
In a comparison of the 2008 NSSE results, pre-CTW seniors, and the 2011 NSSE results, including only CTW-required seniors, our Office of Institutional Effectiveness found the following:

Students taking CTW courses reported
- preparing two or more drafts of paper assignments more often than did pre-CTW students, with 55% of CTW-required students preparing two or more drafts as compared to 44% of non-required seniors,
- engaging in more coursework that emphasized analysis, with 48% of CTW-required students reporting that they engaged in analysis “very often” compared with only 39% of pre-CTW students reporting the same in 2008, and
- working on more projects that required them to include information from various sources, synthesizing more, applying information more, and spending more time preparing for class.

The students’ perception shows that we still have some work to do, however. CTW-required students felt less convinced that they had acquired job or work-related knowledge, gained experience thinking critically, or learned to write more clearly and effectively. The numbers in those areas of student perception remained virtually unchanged among non-CTW required students and CTW-required students who felt that they agreed “quite a bit” and “very much” with any improvement.

The sample for these analyses included 1,113 seniors who responded to the 2008 NSSE and 437 seniors who matriculated in Fall 2009 or after and responded to the 2011 NSSE.

Unanticipated Outcomes: Impact on Programs

One-hundred and twenty-six courses across the university have been revised or created since 2008 to satisfy the CTW graduation requirement. In addition to developing courses and monitoring student improvement, programmatic Ambassadors have also tracked the influence of CTW on their departments as a whole. The following chart shows how the CTW Ambassadors report initiative’s impact on their departments. Ambassadors responded to an open-ended question, so they could choose to discuss any impact they wished. The top five categories are shown below. The percentages reflect the percent out of 52 reporting programs, and these percentages reflect their statements of influence across the last five years.

![Figure 7: CTW Areas for Development and Areas of Influence](image-url)
As the responses show, most programs observed that the student improvement in CTW courses transcended the courses and influenced the department as a whole. Programs also noted that the act of creating assignments for CTW courses encouraged faculty to reflect more on the types of skills critical thinking and writing assignments required.

Impact on Graduate Student Development

From 2009 to the present, the CTW initiative has funded 201 individual graduate students to act as course-specific tutors for CTW courses. Over 50% of these graduate students served more than one semester and 20% served more than 3 semesters, receiving a stipend of $2000 per course. All told, the CTW initiative contributed $820,000 in funding for graduate students across the university.

Annually, CTW courses had an average of 100 new and returning graduate students serving as tutors across the university. Many programs have been able to use the graduate student funding and associated tuition waivers to recruit new graduate students and to develop their graduate programs. Further, many of these graduate students plan to go on to teach at the college level, so the pedagogical training and the practical experience that they acquire working as CTW tutors leaves them better prepared to transition into teaching.

Initially, individual programs handled the training of graduate student assistants, but as the initiative developed, programs began to look to the CTW leadership for assistance in training their graduate students. As a result, CTW has worked with the Center for Instructional Innovation (CII), Writing Across the Curriculum (WAC), and numerous departments across the university to develop training workshops for graduate consultants. The series of workshops developed for graduate students has allowed WAC, CTW, and CII to expand their offerings for graduate training and has encouraged many departments to begin sending their graduate teaching assistants to be trained alongside the graduate CTW and WAC tutors. In 2012/2013, the CTW administrators held two one-day training workshops and worked with other programs to provide access to 80 one-hour training sessions offered throughout the year.

Impact on Faculty Development

Since we began piloting CTW in fall 2008, the CTW initiative has trained 520 faculty members to teach CTW courses. These faculty attended CTW workshops, receiving training in some cases by participating in one or more of the 96 university-wide CTW training workshops, in other cases through joining in small, programmatic training sessions, and in still other cases in one-on-one training sessions with CTW department representatives. After teaching CTW courses, many of these faculty have gone on to incorporate critical thinking through writing type assignments in their non-CTW courses. In fact, 54% of GSU undergraduate programs reported that the most substantial influence of the CTW initiative on their program was in the area of assignment development.
Challenges Caused by CTW

The Critical Thinking through Writing initiative is a graduation requirement, and adding a graduation requirement has, in some programs, placed an unexpected strain on resources. Because CTW courses require a 25:1 student-to-teacher ratio, they must remain small. Four of our colleges decided that they would maintain the 25:1 ratio by hiring graduate writing consultants to assist with drafts and assessment. They used university funding to support their graduate student consultants. Our largest college, Arts and Sciences, decided to cap CTW class sizes at 25 and use university funding to hire additional faculty. While the College of Arts and Sciences has done a wonderful job of maintaining small class sizes, and while the additional faculty support was warranted, the 25:1 ratio has become difficult to maintain in the three largest majors in Arts and Sciences: Biology, Communication, and Psychology. Each of these majors, and some others, have struggled to move CTW required students through their courses, and in some cases, this has led to a slow down in progression toward graduation. Over the past two years, the CTW Directors, the College of Arts and Sciences, and the Office of Retention and Progression have worked with these programs to help find solutions for the problem. Some programs have opted to offer multiple CTW courses for students as a means of alleviating the stress. Others have opted to fund their own graduate writing consultants. However, as the university continues to grow, we will need to continue to look for new, creative means of ensuring that all students receive the benefits of CTW courses without facing a delay in progression through their programs.

Achievement of Goals

The goal of the Critical Thinking through Writing initiative is to develop citizens who are able to engage in critical thinking and clear writing. Over the past 5 years, 520 Georgia State University CTW Faculty members have worked with 56 CTW Ambassadors to develop assignments and rubrics geared toward improving our students’ critical thinking and writing abilities. CTW faculty have taught over 40,000 students using these tools, and 46 of 52 programs have seen their students critical thinking and writing ability improve. Thirty-six of those programs have numeric data that shows their students improvement both within a single course and across multiple CTW courses. While we still face some logistical challenges and while we will continue to improve teaching and assessment tools, we believe that we have achieved our goals of improving student thinking and writing.

Section 4: Reflection

The inception of the Critical Thinking through Writing graduation requirement in fall 2009 allowed Georgia State University to develop a broad range of tools that have become integral to improving undergraduate education, and we plan to continue our commitment to that mission.
As the CTW initiative has matured, it has become more integrated in our programs, and many of our programs report that the practices at the foundation of CTW (critical-thinking based assignments, increased feedback and revision, and systematic assessment) have become a standard part of their non-CTW courses. In fact, the Robinson College of Business is in the process of redesigning curricula to incorporate CTW teaching and assessment strategies into all of its courses.

The Critical Thinking through Writing Initiative has provided Georgia State University with an opportunity not only to illustrate our dedication to improving our undergraduate education, but also to make writing and critical thinking a key component of every major. All students who graduate from Georgia State University will have the opportunity to take two courses where the skills of thinking, writing, and revision are promoted, and where their knowledge of course content is put into practice.

As a university, we remain committed to the promotion of critical thinking and writing. Over the next few years, we plan to naturalize the initiative, moving the assessment from a separate report into the general, undergraduate programmatic reports. The Undergraduate Assessment Committee will continue to review and approve new CTW courses as needed, and the university will continue to fund graduate writing consultants to maintain the 25:1 student-to-teacher ratio.

In the development of this Quality Enhancement Plan, we have faced a myriad of challenges. At times, our Ambassadors have struggled with unwilling faculty and unwieldy assessment plans. Many CTW faculty have faced CTW students resistant to changing instruction, who preferred to memorize rather than synthesize. Some programs have struggled to maintain the 25:1 student-to-teacher ratio and faced a never-ending line of student requests for overflow, while others have struggled to find enough students to fill their CTW courses. On occasion, students have struggled with advisement, and advisement has struggled with CTW programmatic changes. Over the past five years, though, CTW has taught us, as a community, to be creative negotiators, and, as our assessment shows, our students have benefited from the hard work and dedication of faculty, staff, and administrators from every corner of the university.