Research Article

Assessing Perceptions of Critical Writing Across a Career-Focused Campus

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Traceable to Dewey (1910/1991) and popularized in the late 1970s as a mainstream higher-education initiative, critical thinking (CT) has been widely endorsed in university mission statements (Ennis, 2018). In a well-cited conversation, Ennis (1989) and McPeck (1990) debated CT definitions. Ennis (1989) defined CT as general skills and dispositions, explaining CT as "*reasonable reflective thinking focused on deciding what to do or believe*" (p. 4). In Ennis's view, students learn CT outside specific subjects of study, though CT may be taught with specific course content. For McPeck (1990), because subjects of study index different thinking, "there can be no one general skill or limited set of skills (including formal logic) which could do justice to this wide variety of objects" (p. 11). Recently, Ennis (2018) has embraced CT as both a general and subject-specific endeavor, arguing for CT across the curriculum (CTAC). In Ennis's recent proposal, CTAC would be effective if it began with first-year college students developing CT skills, dispositions, and rhetorical knowledge before experiencing subject-specific CT practice in upper-level coursework in the disciplines.

Still, CT exists as a notoriously diffuse concept across higher education landscapes that signal different concepts to different academics. The present study set out, first, to suggest a common definition of CT and, then, to understand what faculty value about this presented definition, how general education (GE) coursework might support CT in meaningful and transferable ways, and, importantly, if faculty expectations or hopes of how CT is taught correspond to sustainable understandings of the concept—that is, to something a class or series of classes can accomplish. Units of analysis in the present study, then, are faculty perceptions of CT and of what kind of writing they feel would prepare students for the kind of thinking and communicating that faculty perceive would help students succeed in coursework and future careers. Specifically, in the present study, we assess faculty-member perceptions of CT as deliverable through an advanced-writing course, Critical Writing, at one four-year, career-focused, rural Midwest university. In the course, the English department has advocated for general and increasingly cross-disciplinary dimensions of CT to be emphasized.

In U.S. institutions of higher education, English and writing departments are key promoters of CT as general and subject-specific skills and habits of mind—as well as rhetorical performance; a review of the skills and dispositions outlined by Ennis (2018) reveals similarities between the goals and outcomes of CT and the goals and outcomes of first-year and advanced writing classes:

Dispositions: Ideal critical thinkers are disposed to

- use credible sources and observations, and usually mention them;

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- be open-minded: seriously consider other points of view; withhold judgment when the evidence and reasons are unclear; and
- take a position and change a position when the evidence and reasons are sufficient.

Abilities: Ideal critical thinkers have the ability to

- analyze arguments,
- judge the credibility of a source;
- make and judge inductive inference and arguments; and
- employ rhetorical strategies. (p. 167)

In addition to these skills and dispositions of writers, and those writers' rhetorical actions in writing, reflecting what first-year and advanced writing courses may already aim to teach, recent scholarship has argued that definitions of CT acknowledge social, interpersonal dimensions: For example, Kuhn (2018) forwarded a dual-process CT definition entailing *input* (i.e., inquiry skills required to examine, evaluate, locate, and synthesize information) and *output* (i.e., argument skills for "construction of a reasoned argument to justify a decision" [p. 122]). This definition presents CT as socially contextualized—rather than only individual and cognitive. Just as Ennis (2018) in his proposal for CT across the curriculum emphasized the importance of writing practice and rhetorical knowledge, Kuhn (2018) positioned argumentative and reflective writing as a mode of thinking about and realizing CT (see Kuhn et al., 2015, for more).

Critical Thinking in First-Year Writing and Across the Curriculum

Per the Conference on College Composition and Communication's position statement on postsecondary teaching of writing (Adler-Kassner et al., 2015) and foundational writing across the curriculum/in the disciplines (WAC/WID) scholarship (Emig, 1977; McLeod, 1992/2000), writing studies and WAC/WID have long recognized CT as related to first-year and disciplinary writing. Defining CT as involving imitation of successful thought, Katz (2018) argued that first-year writing (FYW) can become the introductory CT class. Like Katz (2018) and Hayes et al. (2019), Overstreet (2019) emphasized the need to define CT, and therefore operationalize it for teaching, while arguing for first-year writing courses as also serving centrally as CT courses. For Overstreet (2019), "If FYW can help students reason better—as in more skillfully generate, identify, evaluate and present reasons for belief—we can, therefore, rightfully claim to teach CT" (p. 2). Yancey (2015) also argued for CT as a central aim of GE writing coursework—but also as a course that assists students in noticing patterns in cross-disciplinary writing. CT developed in and through writing has also been argued as preparing students for post-college lives where they face challenges evaluating evidence and making decisions (Abegglen et al., 2016). In discussions of CT and FYW, then, CT entails general and specialized skills and habits of mind, as well as general and specialized modes of communication. Reflecting Kuhn's (2018) dual-process conception, CT as discussed in writing-studies scholarship involves inquiry and communication.

Scholarship exploring CTAC has emphasized the importance of understanding competing notions of CT that faculty and students hold on any campus (Basgier, 2017; Rademaekers, 2018; Rademaekers & Detweiler, 2019). In a study involving one professor

and 32 political-science and public-administration undergraduates in a senior-capstone course, Basgier (2017) reported themes from observation, interview, focus-group, and writing-artifact data indicating students' understandings of CT as shifting among "institutionally defined," as "grounded in the discipline," and as "rhetorically driven" (p. 5). Meanwhile, the professor of the course demonstrated an integrated view of CT across these dimensions, signaling complex relationships between writing and CT in local contexts (Basgier, 2017). In another important WAC/WID study, Rademaekers (2018) interviewed 37 faculty members across one U.S. campus and collected assignment sheets and faculty-selected examples of what works showcased CT in disciplines. Using a grounded-theory approach, Rademaekers (2018) analyzed data into categories of CT, concluding that, while disciplines value some CT skills over others, "these skills remain general critical-thinking skills available and valuable to all disciplines" (p. 133). For Rademaekers, examining how disciplines evaluate CT provides valuable pedagogical and assessment-related insight for first-year and advanced, writing-enriched courses. In a recent follow-up, Rademaekers and Detweiler (2019) revisited the data collected from the 37 faculty members in Rademaekers' (2018) study to re-examine how faculty members defined CT. Results from this study indicated five definitions of CT, as well as explications of specific writing and rhetorical moves that operationalize these definitions from a cross-disciplinary assessment perspective; one major implication, then, is that depending on what definitions of CT faculty value, faculty members expect varying CT performances in student writing (Rademaekers & Detweiler, 2019). Not only, then, should writing-studies scholars and teachers be aware of CT's local variations, but also these variations may index evaluation criteria for student writing.

The Present Study

Our research here builds on the faculty-perception work of Rademaekers (2018) and Rademaekers and Detweiler (2019) in three main ways.

To start, we assess cross-disciplinary faculty appeal of an advanced-writing course called Critical Writing at one four-year, career-focused, rural Midwest U.S. state university—and whether faculty members' understanding of CT, and for classes purported to emphasize CT, such as Critical Writing in the present research site, seems sustainable. The research site is important because of its explicitly career-focused, polytechnic mission. With skepticism of higher education growing in the United States, current trends in many institutions continue to move from quantity to quality: from how many students can be enrolled to how relevant their education can be—and be perceived as being—to keep students enrolled and graduating (American Academy of Arts & Sciences, 2017). In this climate, career-focused, polytechnic institutions may have an appealing message: The curriculum focuses on applicable, hands-on, career-centered skills and dispositions. Yet such an institutional identity, it seems, may require even more argumentation and self-advocation on the part of those of us in English and writing departments to explain our value. Here, we draw on the definitions of Rademaekers and Detweiler (2019) to identify which CT dimensions are reported by faculty across one campus as most valued, and, accordingly, which writing performances we might emphasize when advocating for a class like Critical Writing on such a campus.

Another way we attempt to expand previous scholarship is by user-testing a data-collection instrument that efficiently collects faculty perceptions of CT. While Rademaekers'

(2018) case-study, which employed in-depth interviewing, yielded rich insight into participants' views, we introduce a survey approach we ultimately argue proves capable of capturing quantitative and verbal-data results from a participant pool perhaps more representative of a given campus.

We wish lastly to explore Rademaekers' (2018) insightful remark regarding writing faculty members' ever-present challenge of explaining ourselves. In Rademaekers' (2018) words, which ought to resonate, "Re-casting writing instruction for fellow faculty not as a matter of teaching students to mimic a general academic style, but as a matter of teaching students to be critical, disciplinary thinkers is one of the greatest challenges I've faced in my time as a WAC director and coordinator of faculty workshops" (p. 142). In the present study, we inquired whether informative (albeit brief) cross-departmental assessment outreach efforts like this one had any impact on faculty members' perceptions of writing as capable of impacting students' CT. Previous scholarship on faculty-development WAC workshops has frequently suggested that participating instructors report the greatest levels of interest after an initial workshop (Magnotto & Stout, 1992/2000; Soven, 1988/2002), with a sense of community resulting from that first workshop providing long-lasting impact (Walvoord et al., 1997). When it comes to faculty-development workshops for CT, microteaching has been suggested as effective in helping instructors develop CT in hopes of instructors being able to model CT dispositions for students (Arsal, 2015), and actual changes to how an instructor teaches CT may develop in as little as six weeks of two-hour workshops (Behar-Horenstein et al., 2009). While the present study did not provide fellow faculty members at the research site a developed faculty-development experience, it did provide a common definition of CT for all to consider, and it asked participants to reason through how and why certain types of writing might prompt helpful CT demonstrations from students in their classes. At the research site, this assessment work was done, in part, to modify Critical Writing in ways that may make it seem visibly valuable to faculty and committees in charge of budget and curricular modifications. Equally important as justification, however, is assessment for improvement. Knowing more about what faculty members report expecting from their students later in students' undergraduate coursework may guide GE course development.

Research Questions

Guided by previous work indicating the importance of *local relationships* between disciplinary CT and writing (Basgier, 2017; Rademaekers, 2018; Rademaekers & Detweiler, 2019), and motivated to explore whether this kind of cross-departmental assessment itself would be perceived as raising faculty members' awareness of the role of writing and the department to support classes and programs, the following research questions were posed:

1. What skills and dispositions related to critical thinking do faculty across a four-year, career-focused university campus select as most relevant to their classes?
2. What definitions of critical thinking do faculty at this local context select as most relevant?
3. What genres do faculty at this local context identify as preferring to be taught in Critical Writing, and why?

4. To what extent—if at all—do faculty members perceive completing this informative survey impacted their awareness of writing's and writing coursework's relationship to critical thinking?

Method

The Institutional Review Board of the University of Wisconsin–Stout issued this study exempt status. Interactions with participants and data were guided by the ethical principles of *The Belmont Report* (1979)—*respect for persons*, *beneficence*, and *justice*.

Study Design

For RQ1, when asking what dispositions and abilities related to CT were locally valued, we developed a scale after Ennis (2018); the four dispositions and three abilities we selected as representing CT were presented to faculty at the beginning of the survey. This presentation was done (a) to offer a common way of understanding critical thinking; (b) to explore the extent to which, if at all, such locally distributed surveys mimicked professional development/workshop-type opportunities; and, relatedly, (c) to see if the mere presentation of a definition with example dispositions and abilities was perceived as valuable.

To address RQ2, which asked what definitions of CT faculty valued and deemed locally relevant, we developed a scale of five items after the five definitions from Rademaekers' (2018) and Rademaekers and Detweiler's (2019) analyses (See Appendix for the full survey). These definitions were checked for normal distribution via a Shapiro Wilk test and then analyzed with a Friedman test of difference (the nonparametric equivalent of the one-way ANOVA) to understand whether any significant differences existed in the degree to which faculty preferred any of the five definitions of CT.

For RQ3, we presented faculty with an open-ended survey item. These data were cooperatively coded (Smagorinsky, 2008) between us. We define coding after Geisler and Swarts (2019) as "the analytic task of placing non-numeric data into descriptive categories, assigning them to *codes*" (p. 3). Our process involved independent segmenting of data into codes (Geisler & Swarts, 2019, p. 69), and a codebook was cooperatively developed. We tested how much we agreed on the application of codes. The result was a good level of reliability, with an intraclass correlation coefficient (ICC) of .86 (lower = .63; upper = .95). Coding was also approached as a "heuristic" for linking and analyzing data (Saldaña, 2009, p. 8). Our codes led to the recognition of themes: We distinguish code from theme after Saldaña (2009), who noted that themes, defined as implied in codes and categories, are not explicitly identified in data but result from researchers' reflection and analysis. We settled on definitions of CT input as operationalized in *utterances referring to author-oriented writing that seems to emphasize inquiry skills required to examine, evaluate, locate, and synthesize information* and output as *utterances referring to a genre or type of writing that seems to emphasize argument skills for construction of a reasoned argument or writing that prompts the kind of thinking conducive to class, program, and/or career success*.

For RQ4, although we thought of an intervention-type approach, we concluded that the role of this study was to test out whether a brief survey captured a representative sample of fellow faculty members' views of CT and of a class related to CT achieved through writing. Excluding faculty from the English department, since they were likely to already know what the department's objectives toward writing and CT are, we ultimately opted, then, simply to

directly ask participants (*n* = 51 from the larger *N* = 61) to report (in a four-part survey item) the extent to which they viewed completing our survey as helpful in expanding their understanding of critical thinking and the role the department plays. Numerical data was descriptively analyzed.

Participants

Participants (*N* = 61) were faculty at a career-focused four-year university. All participants were members of departments whose students took Critical Writing. Tables 1 and 2 describe participants' departments and their self-described roles.

Table 1 *Participants by Department*

Departments	Surveyed *N* = 61
Art and Design (offering MFA, BFA, and BA degrees in art and graphic design)	7 (11.5%)
Business (offering BS degrees in business administration, fashion and retail, and supply chain management)	5 (8.2%)
Communication Technologies (offering MS and BS degrees in information and communication technologies, computer networking and information technology, and video production)	4 (6.6%)
English and Philosophy (offering an MS degree in technical and professional communication and a BS degree in professional communication and emerging media)	10 (16.4%)
Operations and Management (offering MS and BS degrees in construction management, risk control and safety management, and training and human resource development)	7 (11.5%)
Psychology (offering an MS degree in applied psychology and a BS degree in psychology)	8 (13.1%)
Social Science (offering a BS in applied social science)	3 (4.9%)
STEM (offering MS degrees in manufacturing engineering, conservation biology, and healthcare administration, and BS degrees in applied biochemistry and molecular biology, applied math and computer science, applied science, computer and electrical engineering, environment science, packaging, and plastics engineering)	17 (27.9%)

Table 2 *Participants' Self-Described Roles*

Item	Options	Frequency (%)
How would you describe your role in your department? (Check all that apply)	General education course instructor	37 (60.7%)
	Instructor of courses for our major or minor	53 (86.9%)
	Graduate instructor	17 (27.9%)
	Administration	6 (9.8%)
	Other. *Open-Answer Replies*: Former Critical Writing instructor (1); Instructor of service courses for other majors (1); Minor advisor and researcher (1); program director (3). (9.8%)	

Table 2 (continued)

Item	Options	Frequency (%)
What terms best describe the students you typically teach? (Check all that apply)	Seniors	47 (77%)
	Juniors	48 (78.7%)
	Sophomores	44 (72.1%)
	First-Year	38 (62.3%)
	Other. *Open-Answer Replies*: All categories-it depends on the class (1); All of the above in the context of GE (1); Club advisor for programs that require lots of research and writing (1); Graduate students (7). (16.4%)	

Materials

We developed materials (Appendix) after existing scholarship on CT in education and writing studies; in this way, we sought to build on existing literature to ensure our instrument's content validity. On the other hand, this study is exploratory to the extent we sought to understand the effectiveness of a survey to assess how a range of faculty members on a campus understood CT, as well as CT related to an advanced writing course, and how they reported understanding how general and disciplinary writing could support CT. We also wished to explore what types of writing faculty who teach students who come through both our first-year writing and advanced writing courses reported as valuable for helping their students do well in their classes, in their programs, and in major-related careers.

Results

Research Question 1: What skills and dispositions related to critical thinking do faculty across a four-year, career-focused university campus select as most relevant to their classes?

Reflective of Kuhn's (2018) dual-process CT definition, entailing *input* (i.e., inquiry skills required to examine, evaluate, locate, and synthesize information) and *output* (i.e., argument skills for "construction of a reasoned argument to justify a decision" [p. 122]), the top two most favored skills included input and output dimensions: The use and evaluation of credible secondary sources came in at the top while the fewest number of participants selected "employing rhetorical strategies" as a CT performance. (See Table 3.)

Table 3 *Preferred Critical Thinking Skills and Dispositions for College and Professional Success*

Scale	Item	Frequency (%)
Preferred Skills/ Dispositions (Ennis, 2018) to Be Cultivated in a "Critical Writing" Class.	Using credible sources, observations, or data.	52 (85.2%)
	Judging the credibility of a source.	51 (83.6%)
	Being open-minded: seriously considering other points of view; withholding judgment when the evidence and reasons are unclear.	47 (77%)
	Analyzing arguments.	45 (73.8%)
	Making and judging inductive inference and arguments from sources, observations, or data.	44 (72.1%)
	Taking a position and changing a position when the evidence and reasons are sufficient.	41 (67.2%)
	Employing rhetorical strategies.	23 (37.7%)
	Open-ended responses: Metacognitive awareness and evaluation of theoretical bases underlying arguments and evidence. (1); Clear Understanding (1); Demonstrating an ability to read, comprehend, summarize, and analyze material as well as to articulate	

Table 3 (continued)

Scale	Item	Frequency (%)
Preferred Skills/ Dispositions (Ennis, 2018) to Be Cultivated in a "Critical Writing" Class.	several directions that an argument might take and ways to further research those directions (1); a. Develop a research question based on previous work and b. Building models, comparing those models to data, and drawing conclusions from those models (1); Being a good listener/reader via empathy (1); Grammar, how to write a complete sentence and paragraph (1). (9.8%)	

Research Question 2: What definitions of critical thinking do faculty at this local context select as most relevant?

Shapiro Wilk tests ($p < .05$) indicated that a nonparametric test of difference was appropriate to understand whether any of the five CT definitions were statistically significantly preferred over another. Results of a Friedman test (the nonparametric equivalent to the one-way ANOVA) suggested no significant difference among the degree to which faculty evaluated the five definitions of CT ($p = .871$). Table 4 presents descriptive data, where a large majority of participants selected a 4 or 5 out of 5 indicating their perception that each definition of CT was relevant to student success at the university.

Table 4 *Description of the Evaluation of Five Definitions of Critical Thinking*

Scale	Items	*M*	*Mo*	*SD*	Min.	Max.
CT Definitions (Rademaekers, 2018; Rademaekers & Detweiler, 2019) Most Valued for Classroom, Major, and Career Success.	a. Critical thinking is a matter of open-mindedness toward information being received.	4.31	5 (88.5% 4 or 5)	.765	2	5
	b. Critical thinking is an ability to look at local issues and think globally—in other words, to "see the bigger picture."	4.21	5 (78.3% 4 or 5)	.878	2	5
	c. Critical thinking is a matter of applying content and theory to professional practice.	4.21	5 (81.9% 4 or 5)	.951	1	5
	d. Critical thinking is a matter of self-awareness, self-reflection, or an ability to think about one's thinking ("metacognition").	4.38	5 (86.9% 4 or 5)	.756	2	5
	e. Critical thinking is a matter of avoiding the impulse to conclude a "bigger picture," or to reach a conclusion about the whole based on too-little information or without fully understanding interrelationships.	4.26	5 (82% 4 or 5)	.964	1	5

Note. A five-point Likert scale was used, where 5 = strongly agree, 4 = agree, 3 = neither agree nor disagree, 2 = disagree, 1 = strongly disagree.

Research Question 3: What genres do faculty at this local context identify as preferring to be taught in Critical Writing?

The codebook and raw data for the genres and their accompanying justifications appear in full in Appendices B and C. Table 5 reduces raw data per cooperative coding (ICC = .86).

Table 5 *Genres/Types of Writing and Justifications*

Question	Category	Code	Definition	Example Excerpts
I. Genre or Type of Writing	1. Input Demonstration [21 instances]	1a. Analytical Writing [9]-43%	Utterances referring to author-oriented writing that seems to emphasize inquiry skills required to examine, evaluate, locate, and synthesize information.	• Analysis • Analysis of creative work • Analytic essays • Research papers • Self-reflection • No opinion or personal vantage points
		1b. Research Writing [6]-29%		
		1c. Argument Writing [3]-14%		
		1d. Self-Reflection [3]-14%		
	2. Output Demonstration [70 instances]	2a. Research Report [26]-37%	Utterances referring to a genre or type of writing that seems to emphasize argument skills for construction of a reasoned argument or writing that prompts the kind of thinking conducive to class, program, and/or career success.	• Analytical Reports • White Papers • Proposals • Business Memos • Literature Reviews • Ethnographic Studies • Lab Reports • Research Proposals • Business Reports • Financial assessments
		2b. Proposal (Project, Research) [15]-21%		
		2c. Business Memo/Assessment Writing [11]-16%		
		2d. Literature Review [4]-6%		
		2e. Persuasive Writing [3]-4%		
		2f. Descriptive Writing [2]-3%		
		2g. Paragraphs (Focused) [2]-3%		
		2h. Statement (Artist, Personal) [2]-3%		
		2i. Other: Blogs/Vlogs; Grant Application; Rhetorical Analysis; Student-Chosen Career Writing; United Nations Documents [1 each]-1% each		
II. Justification for Genres or Types of Writing	3. Input Justification [27 instances]	3a. Understanding Nature and Implications of Data/Results [10]-37%	Utterances referring to a justification centering on inquiry skills required to examine, evaluate, locate, and synthesize information.	• Students should be prepared to recognize the ways in which scientific, technical, and workplace writing are not transparent and value-free. • They promote careful observation and consideration, and depth
		3b. Supporting careful, evidence-based, critical thought generally [9]-33%		

Table 5 (continued)

Question	Category	Code	Definition	Example Excerpts
		3c. Collecting, synthesizing, and building upon the scholarship of previous researchers [6]-22%		of thought rather than shallow thinking. • Literature reviews, ethnographic studies, and rhetorical analyses all require writers to collect information from sources, then add on to that information, analyzing it in service of a purpose that may be different from the purpose of the original source(s).
		3d. Other: Considering multiple sides of an issue; Personal Professional Growth [1 each]-4% each		
	4. Output Justification [18 instances]	4a. Communication Skills Building [10]-56%	Utterances referring a justification centering on argument skills for construction of a reasoned argument to justify a decision or writing that prompts the kind of thinking conducive to class, program, and/or career success.	• Culture through the scope of visuals is used to communicate ideas or issues. Students' ability to articulate these skills are essential. • They need to know the difference between charismatic opinion and concrete data, and also how to use data effectively in persuasion. • Offering well thought out solutions to social problems.
		4b. Understanding How to Use Data Persuasively [5]-28%		
		4c. Real-World Problem-Solving or Conflict Resolution [3]-17%		
	5. Student Goals [9 instances]	5a. Program Preparation [5]-56%	Utterances referring to a justification centering on students' personal, programmatic, or career goals.	• These will help prepare graduates for careers related to any business-related degree program. • I think proposals are nearly ubiquitous across professional sectors. From deciding which contractor to hire to which solution to pursue, proposals are a great genre to work out a lot of critical details. • The student's career focus is more often connected with their interest and passion. Students would most likely write about what they are interested in.
		5b. Career Preparation [3]-33%		
		5c. Appeals to Students' Interests [1]-11%		

Kuhn's (2018) CT dimensions helped us code the genres/types of writing and justifications faculty gave for recommended writing. As condensed above, 70 utterances

signaled output-centered genres or writing types, with 58% of those utterances indicating the research report or research proposal as aptly operationalizing that output practice. Meanwhile, 20 utterances signaled input-centered genres or writing types, with 43% of those utterances indicating analytical writing—which faculty mostly explained as involving the critical analysis of an object, such as a work of art, or a phenomonon. Concerning the justifications for those genres or writing types, more utterances suggested input-related justfications—with 70% of those utterances pertaining to the understanding of the implications and use of data and evidence.

Research Question 4: To what extent—if at all—do faculty members perceive completing this informative survey impacted their awareness of writing's and writing coursework's relationship to critical thinking?

In the midst of budget cuts and reorganization as well as campus-wide furloughs, we decided that attempting to address this question was warranted. Our department, we argue, is sometimes understood as humanities-centered and unnecessary, and therefore as most expendable at a polytechnic. Doing outreach assessment and connecting with faculty members across the campus would have, we hoped, real-world consequences beyond any impacts related to publishing a research report.

As reflected in Appendix, the beginning of the survey presented faculty with a CT definition. In it, CT denoted "*reasonable reflective thinking focused on deciding what to do or believe*" (Ennis, 1989, p. 4). Participants then saw example dispositions and abilities of critical thinkers from Ennis (2018). Table 6 indicates that, while participants (74%) identified a lack of a common definition among discussion of CT, a majority (95%) identified the mere presentation of the above definition with illustrating dispositions and abilities as helpful for understanding CT.

Table 6 *Description of Perceived Research Problem and Value of Mere Presentation of a Common Definition*

Scale	Items	*M*	*Mo*	*SD*	Min.	Max.
Value of mere presentation of Ennis's (1989, 2018) CT definition with illustrating abilities and disposition.	a. When faculty members discuss critical thinking, a clear definition is too often missing.	3.82	4 (73.8% 4 or 5)	.827	1	5
	b. The information listed above is helpful in understanding critical thinking.	4.43	5 (95.1% 4 or 5)	.741	2	5

At the end of the survey, we asked participants (excluding those in the English department) four final questions regarding their perceptions of the usefulness of finishing our survey for understanding CT's relationship to writing and CT's relationship to departmental goals. Table 7 summarizes findings.

Table 7 *Perceived Value of Completing the Survey*

Scale	Items	*M*	*Mo*	*SD*	Min.	Max.
Value of completing this survey. [English excluded, *n* = 51]	a. how writing can help students' critical thinking *in general*.	2.84	3 (27.5% 4 or 5)	1.027	1	5

Table 7 (continued)

Scale	Items	*M*	*Mo*	*SD*	Min.	Max.
	b. how writing can help students' critical thinking *in a specific subject* (e.g., to think like an engineer, designer, social scientist, etc.).	2.84	3 (23.6% 4 or 5)	1.189	1	5
	c. how the English and Philosophy Department at [this university] is aiming to prepare students for classes in their majors.	3.73	4 (68.6% 4 or 5)	1.097	1	5
	d. how the English and Philosophy Department at [this university] is aiming to prepare students for life in a career related to their major.	3.67	4 (62.7% 4 or 5)	1.108	1	5

As reflected above, about 25% of participants reported learning more about writing's role in CT both generally and disciplinarily. Meanwhile, about 65% reported learning more about the English department's role in preparing students for current and future classes, and future careers.

Summary of Findings

1. Faculty across campus most highly recommended that an advanced writing course called Critical Writing focus on the use and evaluation of credible sources as markers of CT useful for course, major, and future career success.
2. Meanwhile, all five of the definitions of CT (Rademaekers, 2018; Rademaekers & Detweiler, 2019) identifying a range of input- and output-related dimensions of CT (Kuhn, 2018) were equally highly identified as useful for students' success in faculty members' courses and in students' future careers.
3. Faculty identified a range of genres or writing types most useful in helping students think critically for a specific discipline, including the output-leaning genres of the research report and the research proposal; those genres were justified somewhat equally between input and output dimensions, though more faculty pointed toward the input processes of understanding the implications and possible use of evidence as a primary justification for the above types of writing (Kuhn, 2018).
4. The mere presentation of a common definition of CT with illustrating examples of specific skills and dispositions, as well as the completion of the 5-to-10-minute survey, were identified as valuable in supporting the understanding of CT and both writing and the English department's role in supporting students' CT.

Discussion

This study attempts to build on the faculty-perception work of Rademaekers (2018) and Rademaekers and Detweiler (2019) (a) by assessing cross-disciplinary faculty appeal of an advanced-writing course, Critical Writing, at one four-year, career-focused, rural Midwest

U.S. state university; (b) by user-testing a data-collection instrument for efficient measurement of faculty perceptions of CT; and (c) by inquiring whether brief, informative cross-departmental assessment outreach is perceived as valuable to participating faculty members. Our findings provide evidence that, while faculty across a four-year campus especially value CT, skills they hope our classes address concern the evaluation and use of credible sources.

Overstreet (2019) emphasized the need to define CT in part to be able to operationalize it for teaching, arguing for first-year writing courses as including CT, and Basgier (2017) suggested the challenge of defining CT in a commonly understood way, since these definitions will remain "institutionally defined," "grounded in the discipline," and "rhetorically driven" (p. 5). This study's findings, we argue, raise the issue of how also to approach sustainable definitions. For example, faculty here indicated assessing the credibility of sources as a high priority; however, assessing the credibility of sources may represent a skill articulated more in terms of what professors see as *lacking* in students' work, rather than in terms of a practice that might be taught to students in a GE course such as Critical Writing. Since no general, all-purpose method of assessing the credibility of sources seemingly exists, is it the case that making this a high priority would represent a misallocation of time in GE and WID writing? The importance of defining CT in terms other than as the negative of what professors imagine as valuable arises here.

Nevertheless, what makes this study's findings especially interesting is the indication that faculty members found value in completing a brief survey framed as cross-departmental outreach. This aligns with insight from previous scholarship on faculty-development WAC workshops, which have long relayed that instructors' interest reportedly peaks after initial workshops (Magnotto & Stout, 1992/2000; Soven, 1988/2002) with a sense of community resulting from first workshops potentially having longer-lasting impact (Walvoord et al., 1997). While 95% of faculty members in the present study who participated reported that it was helpful to consider an illustrated, one-line definition of CT, about 65% found completing the survey helpful in understanding the English department's role in supporting students' CT across campus.

These findings extend earlier CT scholarship, WAC/WID, and writing instruction generally. First, this study (we hope) complements the research of Rademaekers (2018) and Rademaekers and Detweiler (2019) by demonstrating the effectiveness of brief 5-to-10-minute surveys in helping faculty across campus see how an English department does much more than support students' proofreading skills. The practice of doing research, it seems, in some contexts may be enough to continue cross-campus relationships for mutual understanding. We also gathered actionable data to help guide and frame the external validity of our classes. This study additionally adds to what we know in the field of WAC/WID, illuminating what a group of faculty members at one career-focused four-year polytechnic university, in 2021, view as relevant writing to learn, writing to engage, and writing to communicate. Our findings may lend support to the conclusions in foundational and important work on cross-disciplinary analytic moves (Wilder & Yagelski, 2018; Wolfe et al., 2014)—analytic moves such as analyzing data for patterns, which we coded as a CT input dimension per Kuhn (2018), are both helpful and potentially *perceived* by our colleagues across campus as helpful when it comes to student success. Indeed, Wolfe et al. (2014) in their foundational paper argued that the IMRaD (introduction, methods, results, and discussion) macrostructure be taught in first-year composition. This helps students

understand various genre conventions (Beaufort, 2007) and anticipate future writing requirements, thereby encouraging transfer (Driscoll, 2011; Driscoll et al., 2019) while, we argue based on our findings, serving to illustrate a department's cross-disciplinary value. A call for CTAC, or critical thinking across the curriculum, seems worthy of renewed attention in writing studies and WAC/WID per the model proposed by Ennis (2018), whereby first-year writing courses continue to introduce CT while advanced writing courses, such as Critical Writing explored here, assist in more discipline-specific aspects of CT.

This study's methodological strengths include the intentional building upon previous instruments used at other campuses (Rademaekers, 2018; Rademaekers & Detweiler, 2019). Our quantitative approach, complemented by cooperative qualitative coding of open-ended items, also helps to describe faculty perceptions statistically with reliability. It is also possible that the anonymous survey yielded more forthcoming feedback than might interviews with colleagues (Murdoch et al., 2014). Of course, these findings stand in light of the study's limitations. While our survey approach captured feedback with low participant burden, we could not capture the richness of participant insight that results, for instance, from in-depth interviewing. Our findings are also not meant to be generalizable. Additionally, because participants worked in different disciplines—in spite of having encountered a common definition at the outset of the survey experience—they likely fundamentally meant different things when responding about sources, research reports, and evaluating. By cooperatively coding and analyzing participants' justifications for their preferences, we attempted to locate commonalities despite disciplinary differences. Nonetheless, this should be considered a limitation to be overcome in future research.

Further research at various individual institutions should follow, borrowing from and (we urge) improving the instrument used here, to follow up on our preliminary conclusions. Specifically, future scholarship can extend this line of inquiry by duplicating or modifying this study at various campuses to duplicate and complicate our four main findings:

1. Faculty across campus most value the use and evaluation of credible sources as markers of CT, deeming this useful for course, major, and future career success.
2. Faculty across campus value equally various definitions of CT (Rademaekers, 2018; Rademaekers & Detweiler, 2019) that identify a range of input- and output-related dimensions (Kuhn, 2018).
3. Faculty across campus most value the research report and research proposal, and, next, general analytic writing, as most capable of preparing students for the kind of CT useful for class, program, and career success.
4. The mere presentation of a common definition of CT with illustrating examples of specific skills and dispositions, as well as the completion of a 5-to-10-minute survey, clarifies the understanding of CT and both writing and an English department's role in supporting students' CT.

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Appendix

Full Survey

[IRB-vetted consent form]

Please take a minute to review this definition and explanation of *critical thinking*:

Critical thinking has been defined as "*reasonable reflective thinking focused on deciding what to do or believe*" (Ennis, 1989, p. 4). Specific critical-thinking dispositions and abilities are listed here:

1. ***Dispositions****:*
   Ideal critical thinkers are disposed to,
   - Use credible sources, observations, or data;
   - Be open-minded: Seriously consider other points of view; withhold judgment when the evidence and reasons are unclear;
   - Take a position and change a position when the evidence and reasons are sufficient.
2. ***Abilities****:*
   Ideal critical thinkers have the ability to,
   - Analyze arguments;
   - Judge the credibility of a source;
   - Make and judge inductive inference and arguments from sources, observations, or data;
   - Employ rhetorical strategies. (Ennis, 2018, p. 167)

Ennis, R. H. (1989). Critical thinking and subject specificity: Clarification and needed research. *Educational Researcher, 18*(3), 4-10. https://doi.org/10.3102/0013189X018003004

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2. Please rate how much you agree with the following statements: (Likert Scale, 5 = strongly agree, 1 = strongly disagree)

- When faculty members discuss *critical thinking*, a clear definition is too often missing.
- The information listed above is helpful in understanding *critical thinking*.

3. Please rate how much you agree with the following statements: (Likert Scale, 5 = strongly agree, 1 = strongly disagree)

For students who need my classes for their major or future career,

- Critical thinking is a matter of open-mindedness toward information being received.

- Critical thinking is an ability to look at local issues and thinking globally—in other words, to "see the bigger picture."
- Critical thinking is a matter of applying content and theory to professional practice.
- Critical thinking is a matter of self-awareness, self-reflection, or an ability to think about one's thinking ("metacognition").
- Critical thinking is a matter of avoiding the impulse to conclude a "bigger picture," or to reach a conclusion about the whole based on too-little information or without fully understanding interrelationships.

4. The English and Philosophy Department offers an advanced-writing selective called "Critical Writing." This class encourages students to think critically *in* and *through* writing.

- Ideally, what skills would you prefer students learn in Critical Writing to be prepared for your department's classes, programs, and related careers? Mark all that apply:
    - Using credible sources, observations, or data
    - Being open-minded: Seriously considering other points of view withholding judgment when the evidence and reasons are unclear
    - Taking a position and changing a position when the evidence and reasons are sufficient
    - Analyzing arguments
    - Judging the credibility of a source
    - Making and judging inductive inference and arguments from sources, observations, or data
    - Employing rhetorical strategies
    - Other [text-entry field]
- *What specific genres* or *types of writing* would you ideally have students practice in Critical Writing to be prepared for the kind of thinking required in your department's classes, programs, and related careers? (For example, lab reports, research proposals, business memos, etc.) [text-entry field]

5. What department(s) are you currently in? [text-entry field]

6. How would you describe your role in your department? [check all that apply]

- General-education course instructor
- Instructor of courses for our major or minor
- Graduate instructor
- Administration
- Other [text-entry field]

7. What are the majors or minors of the students you typically work with? [text-entry field]

8. What terms best describe the students you typically teach? [check all that apply]

- Seniors
- Juniors
- Sophomores

- First-Year

9. Please rate how much you agree with the following statement: (Likert Scale, 5 = strongly agree, 1 = strongly disagree)
    - Participating in this survey has made me more aware of,
    - … how writing can help students' critical thinking *in general*.
    - … how writing can help students' critical thinking *in a specific subject* (e.g., to think like an engineer, designer, social scientist, etc.).
    - … how the English and Philosophy Department is aiming to prepare students for classes in their majors.
    - … how the English and Philosophy Department is aiming to prepare students for life in a career related to their major.

10. Are you open to talking further about critical thinking and critical writing in your department? If so, please enter your email address: [text-entry field]