Developing critical literacy: An urgent goal

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Abstract

Due to the recent changes in higher education, including a major shift to online learning and the reform of education, critical literacy skills of today's generation of college students face the peril of an increasing decline. All students, developmental and non-developmental in online and face-to-face environments, need the well-organized, systemic effort of college educators to enhance students' critical literacy, including critical thinking, reading, writing, and research skills taught in an integrated manner. To promote postsecondary critical literacy, the Professional and Organizational Development (POD) Network and centers for teaching and learning (CTLs) can expand collaborations with existing "writing across the curriculum and in disciplines" units by incorporating a "reading across the curriculum and in disciplines" component. They can also support undergraduate and graduate curriculum rooted in this integrated concept. CTLs and the POD Network can advance collaborative pedagogical and research projects focused on integrated critical thinking, reading, writing, and research skills. Such projects would involve writing and reading faculty, instructors in various disciplinary areas, librarians, and external partners.

Keywords: critical literacy, college reading, writing and reading across the curriculum and in disciplines

Over the past decade, higher education professionals have witnessed remarkably quick changes that have accelerated even more during the pandemic era. How students learn to communicate in their majors; form their reading, writing, and critical thinking competencies related to their future careers; and transfer acquired professional literacy skills among the disciplines they learn have all changed dramatically in the modern university and especially as a by-product of the wide-ranging shift to online learning in the last few years. Now may be the right moment in history to stop and analyze the losses along with potential steps to regain and/or prepare students with current, essential critical literacy skills.

This analysis begins with an explicit definition of critical literacy, drawn from the work of Oakland University rhetorician and linguist Alice Horning:

> Academic critical literacy is best defined as the psycholinguistic processes of getting meaning from or putting meaning into print and/or sound, images, and movement, on a page or screen, used for the purposes of analysis, synthesis, evaluation and application; these processes develop through formal schooling and beyond it, at home and at work, in childhood and across the lifespan and are essential to human functioning in a democratic society.
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> (Horning, 2012, p. 14)

Critical literacy comprises four sets of skills—critical thinking, reading, writing, and research skills—taught in the integrated manner. Students will need these skills for success in college and in their personal and professional lives (Baron, 2021; Stanford History Education Group and Gibson Consulting, 2019). Although this article calls for all four types of skills, which are equally important vectors of critical literacy, we are putting an emphasis on college reading since it is given the least focus in today's higher education. Given less attention and fewer resources than college-level writing, the ability to read, analyze, and, especially, to evaluate sophisticated alphabetic and digital texts on paper and on

screens is included in the student learning outcomes of every major. Professors and tutors consistently complain that their students do not meet their expectations regarding in-depth reading and research skills (Larkin, 2021). The students' resistance is generally explained by the notorious TL;DR ("too long; didn't read") concept as well as the lack of time, persistence, or the ability to use effective reading strategies. These issues do not make the goal any less urgent, even in these challenging times.

Faculty across the disciplines may cite an assortment of rationales for paying little or no attention to reading: lack of time, lack of expertise, need to focus on course concepts and skills, and so forth (see Carillo, 2015). Some of these concerns arise from inappropriate assumptions about students and their reading needs. While it can be a challenge for all faculty to incorporate more attention to reading, it can also be an important strategy for achieving key learning outcomes. If students are taught how to do assigned reading efficiently and effectively, they might actually complete the assigned work, come to class knowing key concepts and background information, and be successful in learning course material. Faculty should see helping students with reading as a way to meet their own classroom goals.

If anything, the need for students (and the population at large, for that matter) to have expert critical literacy skills is increasing and for several reasons. First, massive amounts of information are coming to all of us in digital form, and this trend is not slowing down. Second, much of this information is skewed in various ways. Some of it is controlled or curated by the major digital companies, as explained by New York University business professor Scott Galloway (2018) in his study of Amazon, Apple, Facebook, and Google. Some of it reflects racial biases as detailed by Safiya Noble (2018), UCLA Gender and African American Studies professor, who leads the UCLA Center for Critical Internet Inquiry. Only students who have developed key critical literacy abilities will be prepared to live and work in this environment, to complete their studies and to participate fully in our democracy. Finally, leading scholars on reading such as Naomi Baron (2021) and

Maryanne Wolf (2018) have argued that this goal is essential for students and everyone else.

The construct that we call critical literacy seems to be necessary in any conversation about disciplinary literacy or information literacy. When critical literacy is applied to a certain discipline, we call it disciplinary literacy, including disciplinary thinking and argumentation, reading skills required to interact with the professional literature, discipline-specific writing skills, and ability to conduct discipline-specific research.

When critical literacy, including critical thinking, reading, writing, and research skills, is applied to acquiring, processing, and utilizing new information, we call it information literacy. The Association of College & Research Libraries (ACRL, 2016), a branch of the American Library Association for university library faculty, issued a set of guidelines and principles of information literacy. However, long before that latest revision, the Board of Directors of the ACRL had set up five clear learning objectives and outcomes of information literacy (ACRL, 2000). These objectives demonstrate the application of the integrated critical literacy acts—critical thinking, reading, writing, and research—to acquiring, processing, and utilizing new information:

(1) *Determining the information need* requires critical thinking in selecting and reading relevant literature, writing reflectively about it, thus determining the need for research on some topic.

(2) *Accessing information effectively and efficiently* engages critical thinking in searching library catalogs and creating an effective search strategy. It also involves skimming and scanning as reading strategies and drafting bibliographies in the process of basic searches.

(3) *Evaluating information and its sources critically* is possible only as a result of critical thinking applied to a selection of different types of sources and evaluation criteria such as currency, authority, relevance, accuracy, and, especially, bias. Close reading skills and

writing annotated bibliographies are necessary at this stage of the overall research process.

(4) *Using information effectively to accomplish specific purpose* calls for the need of critical thinking about differing viewpoints encountered in the literature, reading for quotes and paraphrased ideas, and re-writing original thesis and research goals through incorporating new information.

(5) *Accessing and using information ethically and legally* implies advanced reading skills to recognize risks for plagiarism and advanced writing skills to cite a variety of sources correctly in an approved documentation style (ACRL, 2000, pp. 8–14). Students' information literacy will thus incorporate the skills of critical literacy that must be taught in all classes.

The Status of Reading on Campus Now

For at least three reasons, postsecondary education is not addressing this goal effectively. First, much coursework in critical literacy or college reading as a discipline has essentially disappeared from the curriculum as a result of the developmental education reform and the associated "acceleration" movement, the goal of which is to move students into credit-bearing courses either directly or with co-requisite support courses (Park-Gaghan et al., 2021). Developmental, stand-alone reading course sequences and study strategy courses have been eliminated from university campuses and most community colleges. While some of these changes have come about through legislation or political decisions, the results are the same, as reflected in developments in various locations such as California, Texas, and Tennessee (Daugherty et al., 2018; Hern et al., 2022; Ran & Lin, 2022). Disciplinary literacy curricula (reading courses paired with different disciplines), the way we have known and taught such courses since the early 1990s, are essentially extinct (Adams, 2020c; Del Principe & Ihara, 2016). Recent research, moreover, confirms that much remedial

work does not actually help students succeed in later courses or in degree completion, especially in community colleges, according to Maggie Fay, a researcher at the Community College Research Center at Teachers College, Columbia University (Fay, 2023). In response to state-level and institutional policy shifts, reading and learning strategy faculty have lost their jobs, had to recredential, or been shifted to other positions on campus, so their expertise is either no longer available or difficult to utilize. Only those who have been reassigned to teach college-level writing courses (or other courses within English departments) can still apply their reading and learning strategy expertise in their pedagogy if they choose to do so.

Second, the commonly acknowledged fact is that the students have not changed, and the need for reading and learning strategy instruction has not diminished. As Horning states, "The reading problem has been with us a long time and is not resolving by itself or going away" (2019b, p. 146). Recently, the Conference on College Composition and Communication (2021) has issued a position statement on the importance of reading in college writing classrooms. The statement contains evidence-based observations about the state of students' reading and offers an array of helpful strategies for addressing students' needs. The statement might be useful to faculty teaching co-requisite writing courses, retention specialists, peer educators, and tutors, who are all being pushed by policymakers and state mandates to make pedagogical and curricular changes to accommodate a wider range of students, whose reading placement test scores might have placed them in remedial reading classes in the past (Siegal & Gilliland, 2021). Without college reading expertise, educators these days often seem to re-invent the wheel, offering study skill workshops from the 1990s as they continue working with students who need help with reading. They often ask each other for "reading comprehension" materials as if the whole field of college reading and learning, with its extensive research and practice, has not existed for the past three decades (e.g., see Flippo & Bean, 2018).

Rapid changes in present-day technologies have visibly altered literacy practices in higher education, such as the switch to reading digital texts in both face-to-face and online learning. These changes produce a third reason that college-level classes are not addressing students' critical literacy needs. The recently increased focus on online education, a trend only vastly accelerated in the pandemic, has led to many changes: typical assignments include more independent work on the learner's part, more reading overall, but less discussion of it, more self-discipline, and more innovative instructional technology. Today's college students, despite their attachment to technology, have not necessarily developed adequate strategies for critical literacy from screens (Baron, 2021; Larkin, 2021), so for all these reasons, students do not have the skills they need.

Problematic Assumptions About Reading

The truth is that not only the students are resistant to sustained, meaningful reading routines, but the instructors teaching general education courses or courses in professional programs are also resistant to the idea that reading can or should be taught as part of their classroom activity. Their reluctance to address students' reading issues in their pedagogy can be explained by four incorrect assumptions about this issue. First, faculty think students should know how to read when they come to college. However, various studies have shown that many students lack the relevant skills (National Assessment of Educational Progress, 2019) and that reading develops in important ways through the course of college and across the lifespan (Alexander, 2014; Appatova & Hiebert, 2013). A second assumption is that only students whose test scores suggest a need for developmental work require reading instruction, but Horning quotes recent quantitative and qualitative studies (e.g., ACT, 2017, 2021; Jamieson & Howard, 2016; National Assessment of Educational Progress, 2019; OECD, 2015; Stanford History Education Group, 2016) that demonstrate that "half or more of

current college students lack the skills to analyze, synthesize, evaluate and use material they have read for their own purposes, in school and beyond" (Horning, 2019b, p. 137). The idea that reading only serves as a stepping stone to writing is a third incorrect assumption. A more accurate view is that reading leads to writing that in turn leads to more reading, such that completed writing should trigger new exploration through readings. This cyclical process can be represented as R⇔W to capture learning any discipline, which can guide pedagogical choices of the content area instructors.

Finally, there is the widely held view that reading "belongs" to the English department. University of Connecticut Writing Studies and reading scholar Ellen Carillo (2015), however, found that more than a half of writing faculty did not feel secure in their knowledge of reading theory and practice or their ability to teach students to read more effectively, leading Horning (2019b) to advocate for both increased attention to reading by all faculty and better preparation of writing faculty on reading. Viewed more broadly, neither content area faculty nor English faculty (Armstrong & Stahl, 2017; Gregory & Bean, 2021) have sufficient expertise in reading across the curriculum (RAC). The RAC concept has only gotten limited attention in the writing/composition field to mirror the writing across the curriculum (WAC) notion. Horning (2007) establishes an explicit parallel between WAC and RAC and calls for a special attention to developing the RAC pedagogy in the composition field:

> Hand-in-hand with the current renewed emphasis on student success and a resurgence of Writing Across the Curriculum, instructors in all disciplines need to *refocus* [emphasis added] on Reading Across the Curriculum to address students' needs, to achieve instructional goals, and to prepare citizens for full participation in our democracy.
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> (p. 1)

Even those composition faculty who are engaged in the WAC and writing-in-disciplines (WID) programs can benefit from the integration

of a focus on critical reading that can enhance student learning and success. Unfortunately, as mentioned earlier, college reading faculty who have the training and expertise to support RAC initiatives in any context no longer teach RAC-based courses, teach reading and study strategies courses, or otherwise contribute to this much-needed effort.

All Student Populations Need Critical Literacy Instruction

A number of recent reports demonstrate that all students can and should be more critical readers and writers than they currently are (ACT, 2017; Head et al., 2018; Wineburg et al., 2020). These reports need careful evaluation since their varied approaches can be biased, resulting in an incomplete picture of student skills. Three such measures discussed below, from different perspectives, provide consistent data demonstrating that students need help to become more effective critical thinkers and readers. Approaches that integrate reading instruction with writing appear to be a reasonable way to address the needs of students. And while students have legitimate concerns about the time demands they face with school, work, family responsibilities, and so forth, it is essential to point out that the relevant skills are needed not only for more advanced college coursework but also in many kinds of professional work.

Given the amount of time everyone is spending online these days, it is more important than ever to look at online skills. In contrast to prior claims about "digital natives," most people who have internet access have become much more tech savvy as a by-product of time and need for online interaction during the pandemic. National studies done just prior to the pandemic provide a reasonable snapshot of students' abilities with regard to evaluating materials online (Stanford History Education Group, 2016). Several studies have been done by researchers at Stanford in History Education, drawing on nationally representative samples of high school and college students. Among these, the most useful one for this discussion appeared in 2019 and required the

following kinds of activities on the part of the students in an untimed test, requiring students to evaluate claims and evidence from sources such as online videos, websites, and social media sources (Stanford History Education Group and Gibson Consulting, 2019, p. 10). More than 3,000 students did these kinds of tasks in an untimed, open internet environment in the 2018–2019 school year (pp. 3–8). It is important to note that the study was done before the presidential election in November 2020 and before the pandemic, both of which may well have impacted students' attitudes and/or abilities. The results show that almost 60% of the students could not do these tasks at all, and only 13 students (.038%) attained a perfect score (p. 23). The findings make clear the status of students' skills with regard to online reading and the evaluation of texts. A subsequent study by the same group of researchers in 2020 found similar results (Wineburg et al., 2020). These national studies of high school students show that critical literacy skills, particularly the online ones, are in short supply.

When students come to college, they continue to struggle with the need for critical literacy skills. Additional evidence comes from both librarians, who witness students' research efforts in the library (in person or virtually), and writing faculty, who see the outcome of the research in students' papers. The ACRL has been sufficiently concerned about critical literacy that in 2016 it issued a second iteration of a set of guidelines and principles of information literacy specifically for higher education (ACRL, 2016). A research group that has explored students' actual behavior when working on assigned projects across the disciplines is Project Information Literacy led by Alison Head (2021), currently at Harvard. The self-reported data from this study suggest that students are frequently overwhelmed by information available online and do not know how to find or evaluate factual and reliable information. While this data is based on self-report, it is drawn from a very large number of participants, increasing its reliability.

A third set of studies makes clear the difficulties students have with reading; evaluating and using material, whether it is found through library databases or open web searching; or using materials suggested

by an instructor. The carefully done work of the Citation Project, led by Sandra Jamieson at Drew University and Rebecca Moore Howard at Syracuse, draws on a national sample of student writing that produced a database of almost 2,000 citations to published material (Jamieson & Howard, 2016). The researchers then found the original sources and analyzed what students did with them:

> Citation Project researchers studied researched papers written by 174 first-year students at 16 US colleges and universities and collected in the Citation Project Source-Based Writing Corpus (CPSW). Intertextual analysis of these students' work produced a data-based portrait of student reading and source-use practices, presenting an image of students moving into their sophomore year of college while only sometimes demonstrating expert reading, summary, and citation practices. . . . . Analysis of the 174 researched papers found the students working from one or two sentences in 94% of their citations; citing the first or second page of their sources in 70% of their citations; and citing only 24% of their sources more than twice.
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> (http://www.citationproject.net)

The results suggest that these students did not make substantive use of the source materials, especially since only 6% of their use offered a full summary of the source. This study does not rely on self-report; the data come from students' work submitted for college courses. The Citation Project findings reveal the students' difficulty reading and understanding source materials and using them effectively in their own writing.

While the Citation Project looked at different sources in student writing, the impact of students' troubles with reading both traditional and online materials is clear from other research, such as that on critical literacy when using the wide array of media available online. Writing about the current status of media literacy for the population in general and for students in particular, Columbia Journalism School fellow and Brazilian journalist Ricardo Gandour (2016) pointed to the

challenges of developing critical literacy in the current environment. He conducted several surveys of the population at large and of teachers in particular, showing that a majority of those polled thought media literacy was more important but less taught and less understood than it was previously, due to the increasing fragmentation and polarization in online news reporting (Gandour, 2016, pp. 8–18). There is good reason to think that the situation now, after the COVID-19 pandemic and among other global crises, requires even more effort.

Media literacy includes a number of factors, beginning with the approach, advocated by Howard Schneider, director of the Center for News Literacy at Stony Brook University. A few relatively straightforward steps can help people sort good information from fake news. Students and other readers should ask some basic questions before even looking at materials they find:

> They have to learn to scout the terrain first, by running some checks. First of all, you have to look for signs of fact-checking. Has the information been verified? Second, is there independence from political parties, companies or ideologies? Third, can you identify the credentials and qualifications of the publisher—the source of that information? If these three factors check out, then you're in the news neighborhood.
> (Schneider, qtd. in Gandour, 2016, p. 19)

Once readers have positive answers to these questions, they can examine the information for possible use for whatever need they might have. However, at this point, the ability to sort fact from opinion across increasingly blurred informational lines becomes more of a challenge for the contemporary student. Consequently, the need to develop the ability of getting meaning from print and/or other kinds of input becomes crucial. Unfortunately, as discussed above, the students do not have sufficient expertise to do that kind of critical reading, regardless of their field.

Not only do these assorted findings from different kinds of studies show that students need help with critical literacy, but they also

come from carefully constructed nationally representative samples of students, so the need is not confined to underprepared students or any other specific group. It is *all* students who need to be more critically literate. There is clear evidence for approaches that do work across levels and across disciplines for all students. Evidence for two specific approaches warrant discussion here because the research supporting them has been carefully done over an extended time. First, Arizona State University education professor Steve Graham and his team have done two meta-analyses of large numbers of studies of integrated reading and writing in K–12 classes (Graham, Liu, Aitken, et al. 2018; Graham, Liu, Bartlett, et al. 2018), all of which show that teaching reading and writing together helps students develop key skills. In reviewing his findings in the top journal in reading studies, Graham argues strongly for this integrated view. He writes:

> As the theory and supporting evidence reviewed demonstrated, reading and writing are connected and mutually supportive. Engagement and instruction in one results in improvement in the other. As a result, advancements in the study of reading and writing cannot be maximized if the sciences of reading and writing continue to operate in largely separate fashions.
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> (Graham, 2020)

While Graham's work reviews an assortment of studies at the K–12 level, his idea of an integrated approach is realized at the postsecondary level in the classroom in the work of Peter Adams (2020a, 2020b, 2020c) and his colleagues at the Community College of Baltimore County, among others (e.g., Del Principe & Ihara, 2016).

Adams is now a national consultant for the Accelerated Learning Program (ALP), which he created for the students served by his institution. He has also written a textbook (2020b) for use in ALP classes. The ALP approach calls for students to read and write in ways that draw directly and specifically on an integrated and, it is important to note, an accelerated approach. The accelerated approach makes a

difference because it means students move to credit-bearing courses immediately or more quickly, saving them both time and money. This research shows that students are more likely to succeed in an ALP program than in the traditional sequence of remedial classes at the college level. Moreover, the evidence shows that students who do not take multi-semester developmental coursework are much more likely to complete a degree, a very important outcome that demonstrates the efficacy of an integrated approach for all college students.

To sum up these points regarding students and critical literacy, it should be clear that the majority of students lack the skills needed to succeed in college and beyond. These skills are necessary not only to pass the writing courses that are nearly universally required at most postsecondary institutions but also to pass all the other courses needed for a degree in any field. Moreover, they are essential to participation in a democratic society. These skills are why we want the citizenry to be educated at all. Critical literacy will allow everyone to see, hear, read, and understand all points of view on the array of challenges that confront the country, and citizens can then make their own judgments and decisions based on this information. Only when students can access and assess the information they get from traditional printed sources, as well as from the multitude of resources now available online, can they make informed decisions. Every student, regardless of background or major, deserves the proper instruction to develop these key skills.

What Centers for Teaching and Learning and the Professional and Organizational Development Network Can Do

Due to the recent changes in higher education, including a major shift to online learning and the reform of education, critical literacy skills of today's generation of college students face the peril of even a greater decline. All students, whether developmental and non-developmental

in online and face-to-face environments, need a well-organized, systemic effort of college educators to enhance the students' critical literacy, including critical thinking, reading, writing, and research skills taught in the integrated manner. However, there is little information available on how faculty collaborate to adjust their pedagogy and make informed curricular decisions under the new circumstances in higher education. What we do know is that disciplinary faculty are generally reluctant and resistant to explicitly incorporating critical literacy skills in their pedagogy, as discussed in the section "Problematic Assumptions About Reading" above. Most STEM departments do not have a clear goal of teaching critical literacy in their disciplines and do not collaborate with their colleagues in English or writing departments who may have relevant expertise (Siegal & Gilliland, 2021). Furthermore, even those English or writing departments that are associated with successful WAC/WID programs do not necessarily collaborate with those faculty members who have and can share college reading expertise.

To address the lack of the unified front in promoting postsecondary critical literacy, a leader is needed to bring together English faculty, general education faculty, and other content area faculty and tackle the goal of teaching integrated critical thinking, reading, writing, and research in various disciplines. Centers for teaching and learning (CTLs) should lead other members of the POD Network, such as department chairs, faculty, graduate students, deans, student services staff, chief academic officers, and educational consultants, in taking the following actions.

Expand collaborations with WAC/WID units on campus by incorporating reading across the curriculum and in disciplines

First, CTLs can *support existing institutional alliances with WAC/ WID programs* and build the centers' operation on already productive partnerships with WAC/WID units on their campuses. David Russell (2021), rhetorician and historian of the field at Iowa State

University, in his presentation at the most recent WAC International conference, reminded the audience that the WAC movement, since its beginning in the early 1970s, has been a grassroots movement without its own professional organization. The Association for Writing Across the Curriculum (AWAC) was not formed until 2018. Thus, historically, WAC has been closely intertwined with other professional organizations, including and primarily the POD Network in Higher Ed, which was formed in 1976. What brings WAC and faculty development movement close together is that both are "across the curriculums" (in Russell's term) and substantially overlap. Other across the curriculum movements (such as reading across the curriculum, literacy across the curriculum, and critical thinking across the curriculum) have been around since 1980s but have never acquired broad popularity among educators due to the historical artificial divide between reading and writing fields (which we have earlier referred to, analyzing Graham's and Adams's work). Now, with its own professional structure, AWAC has acquired a new degree of independence and chances to continue its development. However, the historical connection with CTLs and POD Network will most likely remain mutually beneficial for WAC and faculty development movements.

Productive partnerships of CTLs and WAC programs may be arranged with a varying degree of autonomy of the WAC programs from the centers. At small schools, for example, WAC and CTL are generally the same unit on campus. Such an arrangement sometimes causes concerns coming from WAC professionals that CTLs may "colonize" WAC, without recognizing the latter's history and contribution to the faculty development movement. Other schools' representatives report beneficial alliances between WAC and CTLs, which help create a positive response and more potential participation among faculty. When the units, WAC programs and CTLs, are managed autonomously for their specific purposes including clearly separated budgets and location of expertise, their partnerships tend to be more productive (Russell, 2021).

Second, CTLs can *expand their alliances with WAC/WID to include the disciplinary reading component*, in addition to the writing focus—and thus become the national leader in what we hope may turn into the writing and reading across the curriculum (WRAC) and writing and reading in disciplines (WRID) movement. The difference between WRAC and WRID conceptions follows such key principles as the difference between WAC and WID, as outlined by Thaiss and Porter (2010):

> WAC . . . usually implies an initiative in an institution to assist teachers across disciplines in using student writing as an instructional tool in their teaching. WID . . . usually implies that writing is occurring in some form as assignments in subjects or courses in one or more disciplines in an institution; it also refers to research that studies the theory, structure, and rhetorical properties of writing that occurs in disciplines, whether in teaching the discipline or in disciplinary scholarship.
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> (pp. 538–539)

This conceptual relation between WAC and WID is mirrored in the WRAC/WRID model: WRAC initiatives can be housed in the CTLs at the institutional level, and the WRID approach can be implemented in specific courses taught at that institution, as well as a research focus. By promoting workshop series or organizing faculty learning communities, the centers may offer an intellectual space where integrated writing, reading, and research skill instruction in various disciplines is cultivated and where individual faculty teaching general education courses, professional courses, and college-level literacy and research skills exchange their expertise. Reading specialists and reading faculty may still be available even if they were reassigned to other areas or teaching other courses. They should be identified and their expertise be utilized as part of the WRAC/WRID movement. Together, CTL and WRAC/WRID educators can take a consulting role, helping other faculty develop curriculum and expertise in teaching writing, reading, and research skills in their disciplines.

Various forms of partnerships between CTLs and the WRAC/WRID movement require a great deal of flexibility and innovation from the CTL staff and other stakeholders, such as faculty, administrators, and professional staff. In particular, close collaboration with writing centers and library faculty can support the focus on critical reading and writing in every discipline. The greater the variety of the formats for such partnerships is, the more beneficial these collaborations are for all involved parties. CTLs can offer support for undergraduate and graduate students as well as faculty teaching at both undergraduate and graduate levels.

Promote and support undergraduate curriculum focused on WRAC/WRID concepts

Although curricular choices do not fall under the purview of the CTLs and other educational developers, the centers can be instrumental in engaging faculty in meaningful, specific conversations about critical literacy skills that students are expected to demonstrate in their courses. Student learning outcomes of typical first-year content area courses (e.g., psychology, history, business, economics) include the students' ability to conduct some basic research and write in that discipline. Since many academic disciplines already include student learning outcomes related to information literacy, the construct of critical literacy can be used to clarify how information literacy outcomes can be achieved through the application of critical literacy skills (critical thinking, reading, writing, research). In other words, critical literacy will not become a separate student learning outcome but rather a skillset to meet information literacy standards.

Knowing about the students' poor reading skills at the entry point, as discussed earlier in this article, it is reasonable to assume that they need to enhance their reading competencies to be able to write and conduct research in disciplines. That help may come from English faculty or disciplinary faculty, but, typically, neither have a special training in teaching college reading. It is the CTL's role to become a training ground for all college educators, providing the campus community

with an opportunity to incorporate the WRAC/WRID approach across the undergraduate curriculum. Professional development of writing faculty should include the WRAC/WRID method as a pedagogical basis for teaching first-year composition and upper-level writing requirement courses. Professional development of content area faculty should include how to incorporate the WRAC/WRID method into the pedagogy of various disciplines. Disciplinary literacy experts on campus as well as librarians should be involved as consultants and workshop organizers and presenters.

Workshops can be offered on the value of college-level literacy skills in reading advanced-level academic texts, writing and doing undergraduate research in disciplines, integrating college-level reading courses into majors as electives, as well incorporating the WRAC/WRID approach in the everyday pedagogy and classroom research (Armstrong & Stahl, 2017; Gregory & Bean, 2021). For example, a workshop can be offered by a CTL that would focus on outcomes in a content area course that specifically relate to readings required in that course and how to translate those goals into tangible pedagogical choices. A resource that might be of use to both writing teachers and faculty across the disciplines is the Global Society of Online Literacy Educators (https://gsole.org), which offers online workshops. Additionally, professional development workshops can be organized for the assessment purposes. Content area instructors could be trained on how to assess reading-related outcomes in their courses on some regular schedule with the goal of keeping reading a focus in all their courses. Reading-trained colleagues should be involved in such assessment efforts, especially if the content area instructors acknowledge the fact that they lack training in reading theory and practice.

Collaborate with graduate programs promoting WRAC/WRID approaches

CTLs can offer workshop opportunities to graduate programs interested in the WRAC/WRID model. For example, there is a distinct need

to include theory and pedagogy of reading in graduate programs in writing studies. With the significant amount of literature studying college reading since the mid-1960s, there has been a consensus in the field about the insufficient teacher preparation relating to college reading required to teach it at the college level (Paulson & Armstrong, 2014)—an issue that continues to the present day. Recent studies show that writing studies faculty are aware of their lack of training (Carillo, 2015). A review of a sample of PhD programs in rhetoric and composition shows virtually no preparation to teach reading in the majority of programs (Horning, 2021). There are just a few graduate programs that offer the appropriate training for teaching postsecondary reading, mostly aimed at preparing teachers for work in community colleges, such as the ones at California State University, University of Cincinnati, Northern Illinois University, Texas Tech University, Texas State University, and San Francisco State University (Stahl & Armstrong, 2014). Additionally, CTLs and the POD Network can involve the faculty who teach graduate-level postsecondary literacy programs in training first-year composition and content area instructors on how to incorporate postsecondary reading instruction in their respective disciplines.

Promote collaborative teaching and research projects focused on WRAC/WRID, involving writing/reading faculty and content area faculty teaching undergraduate and graduate levels

A CTL can call for a multi-semester faculty learning community or a faculty development institute that would involve instructors and researchers in various disciplines, as well as writing and reading faculty, and invite them to a cross-disciplinary conversation about the WRAC/WRID model. There is a wealth of pedagogical approaches developed for WAC and WID (Gere et al., 2015). There are many specific strategies developed by experts in rhetoric and writing studies for reading across the curriculum and in specific disciplines (Gogan, 2013; Horning, 2007) as well as content area reading and disciplinary literacy fields

advanced by college reading researchers (Bean et al., 2018; Culver & Hutchens, 2021; Moje, 2015; Shanahan & Shanahan, 2014). However, a close *integration of critical thinking, reading, writing, and research skills within disciplines or across the curriculum* has been given insufficient attention. Although the focus on integrated skills has become more prominent recently (Carillo & Horning, 2021a, 2021b), systemic work must be done on college campuses, supported and promoted by CTLs. Specific strategies for the integration of critical literacy and professional communication skills in a solid skillset of a college graduate should be theoretically explored, promoted, and pedagogically implemented through productive partnerships between reading and writing researchers and practitioners, on the one hand, and content area professors, on the other. CTLs can house, and the POD Network can promote, such collaborative pedagogical and classroom research projects. Librarians can be especially helpful in this kind of work since they are concerned with information literacy across all disciplines.

Engage and promote external sources

CTLs and the POD Network can also support the development of teaching materials with a focus on the WRAC/WRID notion. For example, the centers can invite presentations by those publishers and authors whose texts are developed with the disciplinary critical literacy in mind. Commercial companies selling online reading and annotation programs (e.g., PowerNotes or hypothes.is) can be invited to promote their products that support students' research, reading, critical thinking, and writing in every discipline. These tools can help faculty promote stronger critical reading by students if faculty are trained in their use.

The centers and the POD Network can also partner with other educational organizations to promote the WRAC/WRID approaches. They can sponsor WRAC/WRID-focused presentations at conferences, targeting teachers of general education disciplines as well as student success and first-year experience seminars. Venues such as

the ongoing Lilly Teaching conferences (https://www.lillyconferences.com), College Reading and Learning Association conferences (https://www.crla.net), and workshop-based Teaching Academic Survival and Success conferences (https://www.tassconference.org) would be ideal settings for increased attention to students' reading difficulties and how to address them in classes.

It Is Time to Act

Most importantly, all of the above has to be ongoing, sustainable work as opposed to a single training session. In-person and online workshop series, faculty learning communities, and multi-day institutes would be preferred forms of educational development compared to one-off workshops. Problematic assumptions about reading addressed in this article may become the topic for the first workshop in a critical literacy workshop series sponsored by the CTLs and the POD Network. The disciplinary faculty's reluctance and resistance to incorporate critical literacy in their pedagogy may provide an opportunity to engage them immediately in a discussion about the role of reading, critical thinking, and research skills in their disciplines.

The continuous work to promote integrated reading, writing, critical thinking, and research skills across the curriculum will take time and an exposure to multiple viewpoints of various stakeholders, such as student panels, writing faculty, reading specialists, librarians, publishers, national experts in integrated reading and writing and WAC/WID, or local employers. If administrators can come to see and reward this work in terms of financial support and as a valued part of teaching, research, and service, more faculty will be willing to take the various kinds of training and steps to improve student learning, the outcome everyone wants.

A final note related specifically to college reading: we understand that the landscape for critical reading has changed a lot over the last

few years, as a result of both the pandemic's impact on higher education and the need to help a more diverse population of students with differing levels of ability and preparation. Many of the courses and programs that addressed students' needs with respect to reading have been modified or eliminated to address these changes. Meanwhile, students' difficulties with effective and efficient critical reading have not changed. Various kinds of studies, qualitative and quantitative, online and off, show clearly that a majority of students need serious help with reading (ACT, 2017; Stanford History Education Group and Gibson Consulting, 2019; Wineburg et al., 2020). Integrated reading and writing approaches have demonstrated effectiveness that the POD Network can support, particularly in collaboration with CTLs on many campuses. The POD Network can also work with other stakeholders, such as first-year experience programs and especially librarians, to maximize their impact. While better preparation for faculty to teach critical reading would be useful in every discipline, ongoing professional development is key to enabling faculty to make students better readers. A widespread focus on reading must be an ongoing feature of the changing environment in higher education through the work of the POD Network.

Biographies

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Alice Horning is Professor Emerita of Writing and Rhetoric/Linguistics at Oakland University. Her research focuses on the intersection of

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