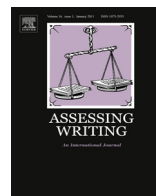




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Assessing Writing



The three-fold benefit of reflective writing: Improving program assessment, student learning, and faculty professional development



Elizabeth G. Allan*, Dana Lynn Driscoll

Oakland University, Department of Writing & Rhetoric, 378 O'Dowd Hall, Rochester, MI 48309, USA

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ABSTRACT

This article presents a model of reflective writing used to assess a U.S. general education first-year writing course. We argue that integrating reflection into existing assignments has three potential benefits: enhancing assessment of learning outcomes, fostering student learning, and engaging faculty in professional development. We describe how our research-based assessment process and findings yielded insights into students' writing processes, promoted metacognition and transfer of learning, and revealed a variety of professional development needs. We conclude with a description of our three-fold model of reflection and suggest how others can adapt our approach.

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1. Introduction

When students reflect upon their learning, they engage in a potentially transformative act of responding to, connecting with, and analyzing an experience, event, process, or product. Reflection is one way to bridge the divide between thought and action—an opportunity for students to describe their internal processes, evaluate their challenges, and recognize their triumphs in ways that would otherwise remain unarticulated. Dewey (1910) argued that reflective thinking can lead to powerful educational transformations. Building on Dewey's work, Schön (1987, 1995) demonstrated the

* Corresponding author. Tel.: +1 248 370 2750; fax: +1 248 370 2748.

E-mail addresses: allan@oakland.edu (E.G. Allan), driscoll@oakland.edu (D.L. Driscoll).

importance of reflective practices for engaged learning in a variety of contexts. Schön (1987) identified “reflection-in-action” as a form of critical thinking: “rethinking” past knowledge or actions and “further thinking that affects what we do” in the immediate task and in similar situations (p. 29). A primary purpose of education is for students to adapt knowledge from their immediate learning context to personal, professional, educational and civic contexts (Perkins, Tishman, Ritchart, Donis, & Andrade, 2000; Russell & Yañez, 2003). We see reflection as a key component in that process. Because the first-year writing (FYW) and general education (GE) curricula in U.S. higher education emphasize building bridges,¹ reflection has tremendous potential for courses throughout the university.

At Oakland University, what started with using reflection as a tool for mandated GE assessment of our required FYW course has led us to develop a model of reflection as a unified approach for improving student learning across the curriculum. Analyzing our experiences spanning three academic years, we argue that reflection yields a three-fold benefit relevant to assessing writing across curricula: (1) to enhance assessment, (2) to promote student learning, and (3) to improve teaching.

In the sections that follow, we first explain how our model of reflection is situated in the scholarship of teaching and learning in writing studies and higher education. After describing our research context and direct assessment methods, we show how reflection became a key part of our research-based writing assessment process and explain our method of triangulating assessment findings for students’ research papers, students’ reflective essays, and instructors’ course materials. Drawing on our assessment results, we present the case for using reflection to facilitate student learning. Issues raised by our assessment results led us to conduct a more refined analysis of a subset of our reflective writing data to address specific questions about our students’ perceptions of learning. Our findings demonstrate how reflective writing can encourage students to view learning as a process, develop students’ metacognitive awareness, and promote transfer of learning beyond FYW courses. We then discuss how integrating reflection into our assessment process revealed the need for more faculty professional development to address faculty resistance and to develop effective strategies for teaching reflection.

Synthesizing suggestions from previous literature with our own experiences, we conclude by articulating a model of reflection in higher education where reflection sits in the center of a variety of productive activities. We see these activities surrounding reflection as a way to “close the loop” (Condon, 2009, p. 149) and bring assessment findings back into the classroom. While our research-based assessment project is situated in the context of a writing course in U.S. higher education, it has broader implications for teaching and learning scholarship across national, institutional, and disciplinary contexts because it offers both a specific pedagogical tool and a model for research-based assessment of student learning through reflective writing.

2. Reflection in the scholarship of teaching and learning

2.1. Definitions and features of reflection

Denton (2011) demonstrated that while there is no single definition for “reflection” across higher education, characteristic factors repeat throughout the literature: evaluation over time, thorough exploration of ideas, depth of analysis, metacognitive awareness, and connection of reflection to specific practices (pp. 841–842). In this section, we summarize the disparate literature on reflection and define the features of reflection that most influenced our construct of reflection for this project: understanding writing and learning processes, fostering metacognition, and encouraging transfer of learning.

Schön (1995) defined “reflective transfer” as situated inquiry that generates working models, which require “modification and testing in ‘the next situation’” (p. 97). Drawing on Schön’s work, Yancey

¹ Russell and Yañez (2003) described U.S. GE courses as “similar to the ‘modular courses’” used in the U.K. (p. 362, note 1). Readers of this journal may also be familiar with the goals of U.S. GE curricula through Morozov’s (2011) study of writing-intensive courses.

(1998), described “reflective transfer” as an iterative practice that requires description, evaluation, and adaptation of processes. In the context of reflective writing, she argued:

Reflective transfer has a specific application: to help us understand the processes by which students learn, the assignments that motivate and structure such learning, the responses that invite insight, [and] the tasks that invite the inside as well as the outside to come together. (pp. 126–127)

More recent research suggests that reflection can be used to better understand and assess writing development beyond student texts, including individual students’ theories of writing and learning, metacognition processes, and understandings of transfer of learning (Slomp, 2012; Sommers, 2011). At its basic level, reflection allows students to move beyond a product-centered approach and focus on the learning process. Yancey (1998) demonstrated that reflecting upon the writing process encourages students to describe and assess their own textual productions and to consider how various audiences may interact with their work (p. 32). Because Yancey’s approach to reflection works particularly well for both student learning and writing assessment, we drew upon her work to design our reflective assignment and assessment rubric.

Another feature of reflection is that it fosters metacognitive awareness when students are asked to reflect on their learning/thinking processes, to monitor their learning, and to adapt their knowledge (Grossman, 2009; Schraw & Dennison, 1994). Researchers have identified metacognition as critical to student learning success, including the development of expertise and the ability to adapt knowledge to new situations (National Research Council, 1999). Yancey (1998) demonstrated that reflection provides at least three things to learners (all of which fall under the mantle of metacognition, although she does not use that term): an understanding of learning goals, an awareness of strategies to reach said goals, and a way of figuring out if a learner has met those goals (p. 6). Metacognition is a type of self-assessment or self-awareness; as such, it can be used for ongoing formative assessment of student progress toward specific goals and for understanding behaviors or projects accordingly (Andrade & Valtcheva, 2009). Denton (2011) suggested that all reflection is, on some level, metacognitive. Since one of our programmatic goals is for students to engage in metacognition, our assessment process included students’ reflective self-evaluations.

A final feature of reflection is that it reveals students’ beliefs about the transfer of learning, or the ability to adapt knowledge from their immediate learning context to a wide variety of new contexts (Perkins et al., 2000). Reflection can encourage transfer of learning by inviting students to build specific connections to prior, current, and future contexts (Beaufort, 2007; Taczak, 2011; Wardle, 2007). Transfer of learning also includes the ability to activate, adapt, and apply prior knowledge to the current learning situation (Reiff & Bawarshi, 2011; Robertson, Taczak & Yancey, 2012) and the willingness to build bridges between current and future learning (Driscoll, 2011; Haskell, 2000; Salomon & Perkins, 1989; Sommers, 2011). Perkins and Salomon (2012) suggested that transfer functions through a *detect-elect-connect* model: Students have to develop meta-awareness about where prior knowledge may apply, elect to pursue connection, and finally, connect and adapt that knowledge to a new circumstance. To understand this meta-awareness, we examined evidence of students’ “transfer-focused thinking” (Elon Statement on Writing Transfer, 2013, p. 4) in their reflective essays.

To summarize this literature, then, we see reflection as a powerful process that allows students to review and evaluate their writing and research processes, demonstrate their metacognitive awareness, and build connections to prior, current, and future learning contexts.

2.2. Reflection in higher education

In the literature that informed our assessment practices, portfolio-based reflection is often discussed as an aid to GE assessment. Assessment of e-portfolios typically includes a reflective writing component (Desmet, Miller, Griffin, Balthazor, & Cummings, 2008; Rickards et al., 2008). Reynolds and Rice (2006) developed a practical guide to using portfolios to assess learning in a variety of courses. Other work, especially in writing assessment, has examined the role of reflective writing (Yancey, 1999) and reflection in faculty development (Willard-Traub, 2008).

Because we were not able to find articulations of reflection in the literature that specifically suggested a multi-step approach to improving curricula, and because of the specific needs of our institutional context (described in Section 3), we present our program's assessment process as a case study of how reflective writing can be used. The specific conditions that made assessing our writing course challenging also provided an opportunity to design an assessment, teaching, and professional development method that could be adapted for a variety of different programs in other institutional contexts. The model that we offer has relevance for those interested in writing assessment, in Writing Across the Curriculum or Writing in the Disciplines (WAC/WID) programs that incorporate writing-to-learn pedagogy, in FYW programs that have other institution-specific curricular structures, and in discipline-specific programs. The value of reflection lies beyond any one domain; rather, we demonstrate a three-fold benefit for using reflection across institutional contexts to understand student learning, assess learning, and engage faculty in professional development.

3. Research context, materials, and methods

3.1. Research context

Oakland University is classified by the Carnegie Foundation as a doctoral/research institution, accredited by the North Central Association. Originally founded as an honors college affiliated with Michigan State University, it has maintained a strong commitment to undergraduate education. Oakland University serves more than 16,000 undergraduate students in the Detroit, MI area, as well as over 3,500 graduate students. Because of its academic reputation and its relatively low tuition as a state-funded institution, Oakland draws students from both affluent and economically disadvantaged communities. Most students commute and hold jobs while attending college full-time. The undergraduate student population is primarily White, yet there is a high level of cultural diversity since many students' families immigrated to this area from Eastern Europe and the Middle East a generation or two ago. The average ACT score for first-year students is 22.5.²

Our required FYW course, WRT 160 Composition II, is also the required writing knowledge foundations course of Oakland University's GE program. Students with an ACT score of 28 or higher (or a score of 3 or 4 on the Advanced Placement English Language and Composition exam) place directly into this course.³ Students who do not meet these placement criteria must first take WRT 150 Composition I (ACT 16–27) or WRT 102 Basic Writing (ACT below 16). Composition II is a prerequisite for many of the upper-level courses in Oakland's GE curriculum, including writing-intensive courses in every undergraduate degree program. Most undergraduate students complete Composition II in their first or second semester.

As co-chairs of the Writing and Rhetoric (WRT) department's assessment committee at Oakland, we were responsible for planning and implementing ongoing assessment of the writing knowledge foundations course. We faced a number of challenges because our Composition II course is not structured around a common textbook or a set of standardized assignments. Instead, WRT faculty members are encouraged to design their own assignments to support the General Education Student Learning Outcomes (see below), following best practices for writing pedagogy. Composition II is taught by both full-time and contingent faculty in the WRT department. Of the 44 contingent faculty who teach the majority of Composition II sections, 7 have master's degrees in the teaching of writing, 5 have PhDs in composition and rhetoric, and others hold advanced degrees in related fields, such as literature, education, and communication. The diversity of our instructors' approaches posed a problem for the WRT assessment committee: No single assignment existed to facilitate a program-wide assessment.

² The ACT is a standardized test used in the U.S. to determine a student's readiness for college-level academic work (<http://www.act.org/products/k-12-act-test/>).

³ High school students enrolled in Advanced Placement courses may take a nationally standardized test to be exempted from introductory college-level courses and/or qualify for higher education credits (<http://apcentral.collegeboard.com/apc/Controller.jspf>). At Oakland University, students who achieve the highest score of 5 are exempted from WRT 160.

Reflective writing emerged as a pivotal element linking GE assessment, student learning, and faculty professional development during our three-year assessment project.

3.2. *Research methods and materials*

In *The Writing Program Administrator as Researcher*, [Weiser and Rose \(1999\)](#) established that WPA research, often rooted in program-based assessment, does not differ in methods or approaches from other kinds of research in the field (pp. vii–ix). Accordingly, we conducted our assessment on two levels using methodologies appropriate for the purpose of improving our own program and for the purpose of better understanding student learning using broader constructs from the field. We obtained Institutional Review Board (IRB) approval to use our de-identified assessment materials as data for research purposes.

We selected the research paper as our direct measure of student learning based on the catalog description of the course:

WRT 160 emphasizes the process of writing in increasingly complex rhetorical situations with focus on developing analytic thinking and problem-solving strategies in writing. Students learn methods of academic research including evaluation and documentation of sources and are expected to create at least one research paper.

While we anticipated that every student enrolled in Composition II would be engaged in research-based writing, our pilot assessment of individual instructors' syllabi had alerted us to the fact that specific requirements for the research assignment varied widely.

We developed a sampling method to assess writing from one randomly selected student in each of the 128 sections of Composition II taught in the 2010–2011 academic year.⁴ To develop our assessment tools, we first needed to operationalize Oakland University's General Education Student Learning Outcomes for the course:

The writing knowledge foundation area prepares students to demonstrate:

- knowledge of the elements, writing processes and organizing strategies for creating analytical and expository prose
- effective rhetorical strategies appropriate to the topic, audience, context and purpose

The course's emphasis on developing rhetorical awareness complicated our assessment design. We collected assignment instructions and syllabi in addition to student writing to determine instructor-specific rhetorical situations (non-expert vs. expert audiences or persuasive vs. informative purposes, for example). This supplemental material allowed our raters to assess each student's level of rhetorical effectiveness more accurately, using performative assessment rubrics that we developed and tested in the pilot study.⁵

Instructors' course materials ($n = 58$) and student research papers ($n = 109$), as well as student reflective essays ($n = 104$) discussed in Section 4, were assessed over 2.5 days by an ad hoc WRT committee of three full-time faculty and four contingent faculty, all of whom teach the course regularly. The faculty raters participated in norming sessions where they independently evaluated sample anchor papers and helped us to refine the rubrics by adding or clarifying qualitative distinctions (see [Appendices A and B](#)). In the next section, we discuss our reasons for adding reflective writing to the assessment process, our reflection assessment rubric, and our extended analysis of a subset of reflective essays.

⁴ Our sampling method was developed in consultation with Oakland University's Office of Institutional Research and Assessment. All 22 instructors teaching WRT 160 in the fall submitted materials. In the second semester, 39 of the 42 instructors teaching WRT 160 submitted materials. Materials from 1 instructor's sections were not readable, and 5 students did not submit the required reflective essay, leaving us with 109 papers and 104 reflections.

⁵ See [Faigley, Cherry, Jolliffe, and Skinner \(1985\)](#) for a detailed discussion of how to develop performative assessment rubrics that describe levels of proficiency for specific writing tasks. We have included our rubric for rating the students' research papers in Appendix B.

4. Reflection and research-based assessment methods

4.1. Integrating reflection into the assessment process

There was a crucial component of the required General Education Student Learning Outcomes that our direct assessment of the students' research papers could not measure, even when taking the parameters of each instructor's unique assignment into account: the students' knowledge of writing processes. Therefore, the WRT assessment committee created a common reflective writing assignment. Similar to the "behind the paper" memo developed by [Sommers \(1988\)](#), our reflection prompt included specific questions about the writing and research processes, as well as questions that address other departmental goals for the course (see [Appendix A](#)). As [Yancey \(1998\)](#) argued, process descriptions "provide a record of what happened" and make students' knowledge visible to themselves and to others (pp. 26–27). We based our reflective writing assignment on the principles of reflection-in-action ([Schön, 1987](#)) and reflective transfer ([Schön, 1995](#); [Yancey, 1998](#)) and the social constructivist theory that "prompts for self-assessment work toward building a habit of formative evaluation" ([Hilgers et al., 2000](#), p. 14). While the reflection prompt emphasized our process-based approach to writing for assessment purposes, it was also designed to introduce our faculty and students to reflective writing as a key component in the learning process.

To give readers a sense of our overall process for integrating reflection into our assessment, [Fig. 1](#) presents a graphical representation of our timeline and the major components of this process.

Each instructor was asked to include our reflection assignment as part of the coursework in conjunction with his or her existing research paper assignment. During our annual professional development seminar at the end of the 2009–2010 academic year, we introduced the concept of including reflection as part of the program assessment process, and we distributed resources and models for teaching reflection, such as Reynolds and Rice's (2006) *Portfolio Teaching*. We explained the common reflective assignment at a faculty professional development workshop at the beginning of each semester that assessment data was being collected (AY 2010–2011). Many of our faculty had never assigned reflections with their assignments; therefore, we provided ongoing support for faculty who had questions about teaching reflection.

4.2. The reflective writing assessment rubric and additional coding

Reflections gave us a window into the writing, research, and learning processes from the students' perspective. Raters read the reflective essays for evidence of the students' engagement with specific process-based activities related to writing and research, and for self-evaluative statements about their strengths and weaknesses as writers and about the quality of their learning through the research paper assignment. In each subcategory of the assessment rubric (see [Appendix A](#)), a score of 1 indicated that there was no evidence of that characteristic present in a student's discussion of his or her experiences. A score of 2–5 on the performative assessment scale (with 2 being poor and 5 being exceptional) indicated the level of detail and depth of insight demonstrated by the student for each subcategory. Two writing process subcategories were scored only as present/absent in the student's reflection: faculty interactions/conferences (Yes = 25.5%) and writing center visits (Yes = 11%). Each reflection also received a holistic score for overall quality. We designed the performative assessment rubric to assess students' engagement with a number of good writing behaviors—help-seeking, pre-writing, peer review, critical evaluation of sources—and their perceptions of how those behaviors relate to writing outcomes.

After our initial assessment of students' reflective essays ($n = 104$) was completed, we realized that our original rubric could not provide enough detailed information about some aspects of student learning that had surprised us (see [Section 5](#)). As writing studies scholars whose research interests lie in the scholarship of teaching and learning, we expanded our initial assessment to investigate students' descriptions of their learning. We systematically coded a subset of student reflections ($n = 20$). First, we compiled a list of "weak" and "strong" reflections (those with a rating of 1 and 5 in the two "learning" categories from our original rubric) and randomly selected five from each category. Drawing upon the features of reflections we described in [Section 2.1](#), we focused our analysis of

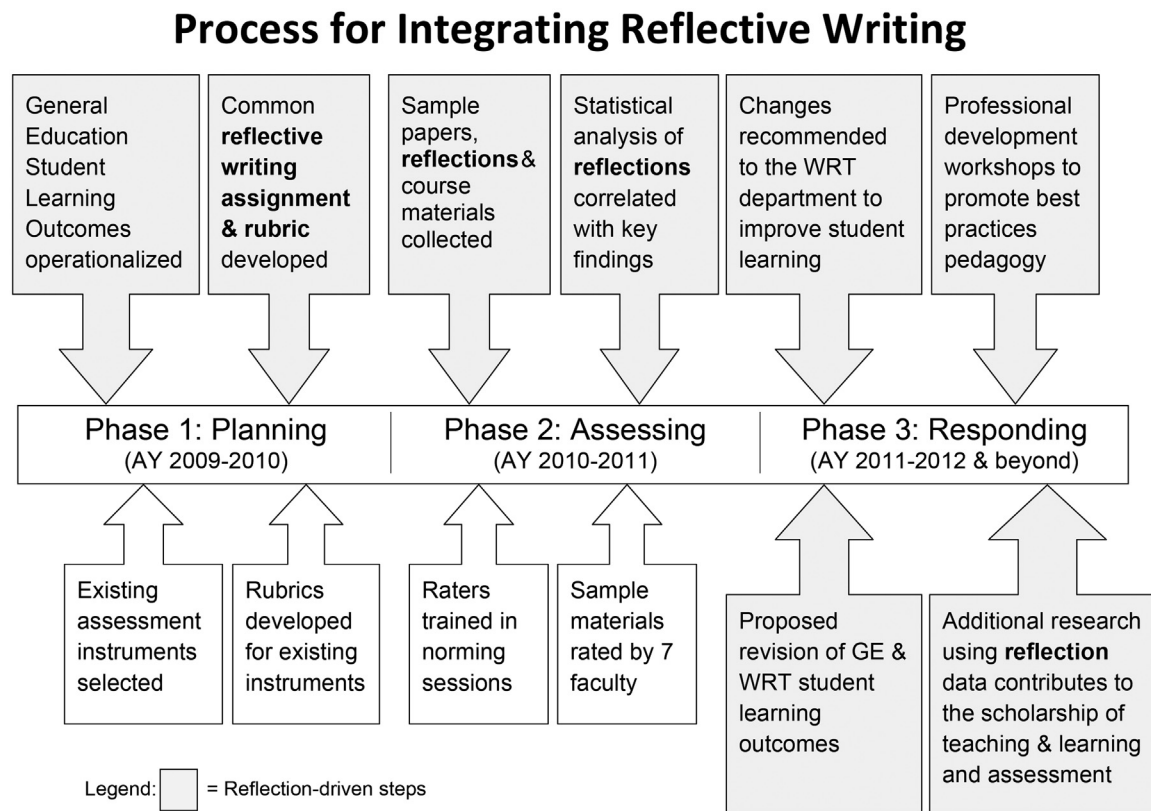


Fig. 1. Timeline for integrating reflection in WRT 160 at Oakland University.

student learning in three areas: writing/research processes, metacognitive awareness, and transfer of learning-focused thinking. We developed and refined coding categories in the following areas: (1) understanding writing process, (2) understanding research processes, (3) transfer of learning, and (4) lack of transfer or negative transfer (see [Appendix C](#)). Although the sample size of this extended analysis was much smaller than the original research-based assessment, focusing on the strongest and weakest reflections gave us greater insight into students' positive and negative learning experiences.

4.3. *Benefits of reflection for research-based assessment*

Our approach to GE assessment is grounded in the discipline-specific research methods practiced in writing studies (see [Adler-Kassner & O'Neil, 2010](#)). Including the reflective assignment in our assessment research protocol gave us an additional sample of the students' writing that not only helped us to contextualize the research papers but also enacted our discipline's best practices for writing assessment as articulated in the position statements of the National Council of Teachers of English and the Council of Writing Program Administrators ([NCTE-WPA, 2008](#)) and the Conference on College Composition and Communication ([CCCC Committee on Assessment, 2009](#)).

Assessing the relatively short reflective essay (600–800 words) combined with a research paper from each student in our sample added depth to our assessment process without overwhelming our raters with a complex array of student texts in multiple genres. For institutional contexts where portfolios are not an established pedagogical practice or where limited resources preclude reading an extended set of texts for each student in the assessment sample, the addition of a short reflective essay tied to the direct measure of student learning proved to be an efficient and highly beneficial assessment method. We initially recognized reflection as a way to understand not just students' products, but the processes that guide those productions. Comparing a draft to a revised version of a student essay, for example, can tell us *what* the student changed—and *how*, to a certain extent—but it cannot tell us *why*. In contrast, reflection allowed us to learn about the relationship between students' beliefs and their behaviors and to understand students' responses to our curriculum that would otherwise remain hidden.

5. Reflection and student learning

5.1. *Students' perceptions about writing and research processes*

Because we subdivided the writing process category in the performative rubric used to assess the reflective essays ($n = 104$), we were able to differentiate between the inherently social activities emphasized in best-practice writing pedagogy (such as conferences and peer reviews) and the traditional five-step writing process familiar to most students (prewriting, drafting, revising, editing, publishing). [Table 1](#) shows the mean scores for the students' reflective essays. Since this rubric will also be used to assess advanced students' writing during subsequent program assessment, mean scores in the 3 range are not unexpected for novice student writers.

The mean scores for the four writing process subcategories evaluated on the 5-point scale (prewriting, revision, editing/proofreading, peer review) ranged from the lowest (peer review: 1.93) to one of the highest (prewriting: 3.01). Although students perceived that they had learned about writing through the course, two of the best-practices activities that we consider fundamental to our approach to writing at Oakland—peer review and revision—were not discussed as often or in as much detail in the students' reflective essays. Self-evaluation of learning about writing was rated highest at 3.17, while revision was rated at only 2.7. Similarly, mean scores in the research process subcategories (locating peer reviewed sources, selecting and evaluating sources, integrating sources in APA format) ranged from one of the highest (selecting and evaluating sources: 3.1) to one of the lowest (integrating sources using APA format: 2.01). These conflicting results within a single process category added a layer of complexity to our assessment that would not have been visible without the data from students' reflections.

Table 1

Mean scores on reflection assignment performance rubric.

Reflection rubric category	Mean score (5-point scale)
1. Writing process	
a. Prewriting	3.01
b. Revision	2.70
c. Editing and proofreading	2.22
d. Peer review (in class or online)	1.93
2. Research process	
a. Locating peer-reviewed sources	2.78
b. Selecting and evaluating sources	3.10
c. Integrating sources in APA format	2.01
3. Self-evaluation	
a. Strengths of writer	2.98
b. Weaknesses of writer	2.95
c. Quality of learning	
(i) Learning about writing and rhetoric	3.17
(ii) Learning about research paper topic	2.85
4. Overall quality of reflection	3.19

5.2. Describing and evaluating processes

When we coded the subset of weak and strong student reflections, we found that nearly all students were quite articulate in describing and evaluating their research and writing processes. In our coding, we split up a description of process (what a student did) from the evaluation of the process (why a student did it) and found that all students in our sample (100%, $n = 20$) both described and evaluated their research process, while 95% ($n = 18$) both described and evaluated their writing process.

Students were able to identify places of difficulty and evaluate their success by discussing their choices, strategies, or limitations. For example, one student not only recounts what happened during her revision process but also evaluates her process as rushed and, therefore, not completely effective. This excerpt comes at the end of a long paragraph describing her absences during peer review days and her attempts to find others to give her feedback on her paper:

I waited a day so that I could just think and then changed the paper for the last time. Most of the corrections were done in a few days and I wish that I would have been more prepared so that it could have happened in a few weeks. This would have improved the paper greatly.

Since describing and evaluating a process is the most concrete part of a reflection, connected to actual practice, it makes sense that students were most effective in this area. As we asked students to move further away from the actual act of research and writing and into more abstract reflection, which is critical for successful transfer of learning, their responses grew less clear and less detailed, as described in Section 5.4.

5.3. Students perceptions of their learning

In our initial assessment of students' self-evaluation of the quality of their learning as discussed in their reflective essays ($n = 104$), we distinguished between learning about writing and rhetoric (mean score 3.17) and learning about their research paper topic (mean score 2.85). Although we did not directly ask students about applying prior knowledge or anticipating transferring to other contexts, our goal of understanding students' views of transfer of learning is implied in the prompt question "What did you learn from this writing assignment?" For this baseline assessment, we were interested in learning about how prepared students were to engage in *unprompted* transfer-focused behaviors and thinking, before we implemented specific pedagogical interventions.

5.4. Metacognition and self-assessment of learning

Metacognitive features seemed more challenging for the students to report than writing and research processes. Our extended analysis of weak and strong reflections ($n=20$) revealed that students did not describe their overall learning using nearly as much detail as they did when they discussed and evaluated their writing process. Students discussed learning information about topics (50%, $n=10$), research (65%, $n=13$), and writing (50%, $n=10$), with 15% of students ($n=3$) not describing their learning at all, despite being directly prompted to do so. Students were more specific when they described what they learned about their topic, and they discussed learning of research and writing skills in broader terms (which pointed to one area for additional faculty professional development in terms of teaching reflection, as discussed in Section 6).

One student, in describing what she learned, wrote of her topic, “I learned about the inaccurate perception that many Americans have towards the homeless.” But when describing what she learned about the research process, she wrote, “I learned what sources I have available to me”—without specifying the nature of those sources or how she could access them. Another student, who did not address his topic-related learning at all, described what he learned in very unspecific terms: “From this writing assignment, I learned that the research process is very long and consists of many things.” These vague responses suggest that we needed to spend even more time teaching the value of focused, detailed reflection and metacognitive awareness.

5.5. Evidence of transfer-focused thinking

As transfer of learning requires students to abstract beyond the immediate learning situation and detect-elect-connect (Perkins & Salomon, 2012), we examined places where students indicated engaging in such behaviors unprompted: adapting prior knowledge to their courses or research assignment (20%, $n=10$), connecting learning to other current contexts (10%, $n=5$), connecting learning to future contexts (45%, $n=9$), and engaging in other positive behaviors that would facilitate transfer (30%, $n=6$). For example, one student provided a detailed description of successfully adapting a research and source management strategy from middle school. She writes, “As the due date for the final paper inched closer, I decided to try an approach I learned in middle school on how to write a fluent research paper. This strategy came in handy when composing my literature review.” She goes on to describe what she did in detail and to evaluate the success of that approach.

5.6. Evidence of negative transfer

Students also demonstrated evidence of self-reported negative transfer, including difficulty in overcoming perceived differences between prior learning and current learning in the course (35%, $n=7$), applying strategies in inappropriate ways (10%, $n=2$), and engaging in other behaviors that resisted learning (10%, $n=2$). For example, students reported struggling with learning new genre and formatting techniques (e.g., APA style) and saw those differences as detrimental to their success as writers. One student wrote, “Since I have never used APA format in the past, it was extremely difficult for me to adjust to the change.”

What these reflections taught us was that students were making some attempts at transfer-focused thinking and metacognitive awareness, but the fact that less than half of the students, overall, were engaging in transfer-focused thinking suggests that we need to encourage these kinds of behaviors more overtly through scaffolded in-class activities and explicit reflective writing prompts.

6. Reflection and faculty professional development

By including student reflections in addition to their completed research papers, we were able to create a snapshot of student learning that helped us set the agenda for ongoing professional

development. Yancey and Huot (1997) assert, “WAC assessment is as much about faculty development—about how faculty develop and monitor their teaching and about how their understanding of learning changes—as it is about student development” (p. 11). This statement is true not only of WAC assessment but of all forms of writing assessment. In fact, it is a principle of reflective practice that applies to individual performance assessment, as well as to course or program assessment, in any disciplinary context.

Simply assigning reflections to improve student learning is not sufficient, however. If reflection is not specifically taught in the context of a course or an assignment, or if reflections are not treated as artifacts for assessment in their own right, the resulting analysis will not be as effective as a springboard for professional development. There are aspects of the learning process that cannot be answered without the insight into students’ thinking that reflective writing makes possible.

6.1. Addressing faculty resistance to reflection assessment

By providing a short reflective essay assignment that would complement the writing that was already happening in the course, we were able to balance our need for a common assessment measure across different sections of the course with our desire to respect our instructors’ academic freedom. Faculty resistance to mandated assessment is a frequent topic of discussion in assessment scholarship. Wang and Hurley (2012) found that “faculty autonomy” is a key factor in their “willingness to engage in assessment” (p. 9). As Bresciani (2007) has noted, “Faculty may be hesitant to engage in...course-embedded assessment, if they believe that poor results will be factored into their teaching evaluations” (p. 12). When reflection is part of that assessment process, the stakes are even higher for untenured faculty who may fear that students’ reflective writing could negatively influence instructors’ performance reviews. Indeed, some assessment experts do advocate using reflective writing assessment to identify individual faculty members who can act as mentors to promote best practice pedagogy (Condon, 2009, p. 148). But if student reflections can be used to identify exemplary instructors, then they might also be used against individual instructors. Even though we discussed this issue openly in staff meetings throughout the assessment process, our instructors were understandably nervous about the possibility of *their* randomly selected student turning out to be the weakest or most resistant student in the class. This concern is one reason that we followed a research-based protocol of de-identifying instructor and student materials and of reporting aggregated results that would guide us in promoting best practices at the program level.

A second area of faculty resistance specific to reflection involved skepticism about the quality of information that student reflection offers. Some faculty feared that students would use the reflections as an excuse to complain; others worried that students would paint a falsely positive picture of their level of engagement. Instructors familiar with large-scale, state-mandated portfolio requirements in U.S. secondary education have good reason to be cautious about applying a standardized reflection system to their college classrooms. Scott (2005) found that the personas high school students created in their reflections in order to meet the required rubric score contrasted sharply with the students’ more candid responses to interviews and their observable behaviors during class sessions. This phenomenon is not uncommon at the college level, either. Weiser (1997) identified problematic characteristics of students’ reflective cover letters for writing portfolios, including “the schmooze factor” (p. 300). Reynolds and Rice (2006) offered several ways to avoid eliciting reflections that exhibit “schmooze”—the tendency for students to say what they think their instructors want to hear and to make personal and emotional appeals for good grades (p. 61).

At Oakland University, some of our faculty initially reacted to the idea of assigning student reflections by asserting that students do not take reflection seriously. At our annual professional development seminar, one of the instructors (who later agreed to serve as a rater) stated that, in her experience, reflections were a just a student’s way of “blowing sunshine up your ass.” To address these concerns, we presented preliminary findings from our pilot study (conducted to develop the assessment rubrics) and explained how the reflections would be used. We also provided resource materials, including copies of Reynolds and Rice’s work, to all of our instructors. Our discussions of

“judging degrees of schmooze” (Reynolds & Rice, 2006, p. 61) prepared our instructors to teach reflective writing in WRT 160. We are continuing to conduct workshops on teaching reflection as part of our ongoing professional development agenda.

6.2. Teaching reflection

While reflection can be of substantial benefit to student learning, as the literature reveals and our own experiences can substantiate, reflection can be challenging to teach effectively. Denton (2011) argued that the term “reflection” is not a single construct but a series of related areas that include both internal and external aspects. *Internal* to the student are qualities that may promote reflective thinking upon past events/experiences, such as metacognitive awareness and willingness to spend time; *external* to the student are aspects that influence the production of reflection, such as faculty’s pedagogical techniques or reflective genres such as journaling and reflective essays (pp. 839–840). As Denton suggested, we must be aware of the interplay between internal and external aspects. Reflective writing is too often treated as a transparent and universal skill commensurate with such loosely-defined terms as *effective communication* or *writing competency*. Callahan (2000) demonstrated that both instructors’ and students’ learning style preferences can create unconscious biases and resistance, which complicates our ability to interpret students’ reflective writing. Seeing reflections as an easy-to-master skill is problematic because, as we know from the transfer of learning and metacognition literature, elements that reflection promotes are hardly transparent to students or faculty (Callahan, 2000; Haskell, 2000; National Research Council, 1999). If we want reflection to have meaningful benefits, it must be modeled and taught (Callahan, 2000; Grossman, 2009). In our assessment process, we found that a reflective prompt could not simply be handed to the students. For quality student work, instructors had to teach students how to reflect through modeling, class discussions/activities, and formative feedback.

One of the key areas to teaching good reflections is writing clear reflective prompts. Instructors must determine the goal(s) for reflection and the kind of reflection in which they want students to engage. A good prompt will encourage certain kinds of response. Beaufort (2007) argued that reflection alone is not enough to facilitate quality learning. Reflection prompts that negotiated between being too general and too specific created the best responses.

Additionally, our instructors reported much more success with reflection when reflection “counted.” Making reflection count certainly includes giving students points for reflection as part of their grade, but we also encourage talking to students about *why* reflection is factored into the course grade and what benefits it has for them as learners. Students need to see reflection as something beyond an empty exercise of “blowing sunshine.”

6.3. Reflection-driven professional development at Oakland University

Andrade (2007) argued that a workshop approach to professional development yielded unanticipated benefits because it engaged the faculty in discussions of departmental goals and expectations. Rather than simply reporting FYW portfolio assessment results at a meeting, Andrade asked instructors to work collaboratively to reenact the assessment scoring process using a particularly weak student essay (p. 202). The resulting discussion of the assessment rubric functioned as a retroactive, department-wide norming process. While Andrade’s approach exemplifies closing the loop by tying assessment results directly to specific efforts to improve teaching and learning, from our perspective there was a missed opportunity: Because the student’s reflective cover letter was not considered in their analysis of teaching and learning practices, the instructors in Andrade’s study were unable to tap the potential of reflective writing as a source of data.

In contrast, at Oakland University, including three sets of data in our assessment analysis—instructors’ course materials, students’ research papers, and students’ reflections—allowed us to triangulate multiple sources of data to identify trends that would not have been apparent with any single dataset. Based on our assessment results, the FYW director, associate director, and members of the WRT assessment committee identified issues that we could address with specific recommendations and changes to our faculty handbook, such as clarifying our departmental policies about requiring

revision and scheduling individual conferences. We then prioritized the student learning outcomes that needed more sustained intervention and designed a series of faculty-led workshops to address those concerns collaboratively with our FYW instructors.

Each professional development workshop began with a very brief presentation that focused on one important finding from our assessment data to frame the discussion and related activities. For example, we found that the lowest scores on students' research papers were in the four subcategories related to purpose and audience—a disturbing finding for a course and program that emphasizes rhetorical awareness. Our assessment of the instructors' course materials, however, showed that only 26% ($n = 15$) of research paper assignment instructions clearly included information about the intended audience(s). These findings determined the focus of one of our professional development meetings—best practices in assignment design—with opportunities for faculty to share classroom-tested materials and strategies.

While we hasten to add that the rhetorical concept of audience may have been addressed in discussions or related activities that occurred in the classroom and were not directly assessed, the lack of explicit written instructions about the nature of the audience and the expected rhetorical strategies affected student performance on the specific task (the research paper) and metacognition in student learning (the self-evaluative reflection). As [Condon \(2009\)](#) argued, reflective writing “can provide data that engages assessment with instruction” (p. 149). In our experience at Oakland, including faculty in a collaborative effort to assess learning outcomes as a research-based activity and to respond to key findings as a professional learning community has strengthened our departmental culture, as we model the same “reflective learning habit” ([Reynolds & Rice, 2006](#), p. 30) that we cultivate in our students.

6.4. Next steps

Through our work with reflection, we recognized the need to promote the teaching of reflection and the importance of reflective learning throughout our curriculum. Encouraging students to build connections and engage in metacognitive thinking required reflection in ways that moved beyond a description and evaluation of what students accomplished in an assignment. Since completing our initial assessment, we have taken additional steps to integrate and emphasize reflection throughout our program. This work has included ongoing professional development activities surrounding reflection, such as workshops on metacognition and teaching reflection for our faculty. Our FYW director revised the faculty handbook to include information on reflection, transfer, and metacognition; and developed a supplemental text for our FYW courses that includes student contributions with models of successful reflections. Finally, we piloted a new, heavily reflective approach to teaching FYW, which highlights activities to activate prior knowledge by asking students to talk about their prior knowledge of various written genres, to reflect upon previous writing experiences, and to transfer their learning to other contexts.

7. Conclusion: a model of reflection at the center of learning, assessment, and professional development

When reflection is included as part of the repertoire of teaching and learning practices, it has the potential to be a central component of variety of GE and disciplinary programs. The seemingly simple act of reflection can become a transformative, powerful practice that produces at least three benefits: reinforcing and extending student learning, improving assessment to better understand our programs, and facilitating faculty engagement in professional development.

While reflection has had substantial attention in higher education, the discussion and implementation of reflection seems to take place in insulated, sometimes contradictory ways. Numerous fields not directly connected to writing or general education employ reflective practice: teacher education ([Gay & Kirkland, 2003](#); [Tillman, 2003](#)), film studies ([Blasco, 2011](#)), nursing ([Craft, 2005](#)), medicine ([Bonovitz, 2010](#)), biology ([Balgopal & Montplaisir, 2011](#)). Several scholars have addressed the pedagogy of reflection for higher education in broad terms, although differing views exist on what it is, how to teach it, and in what contexts it can best be used, as described in Section 2 ([Denton, 2011](#);

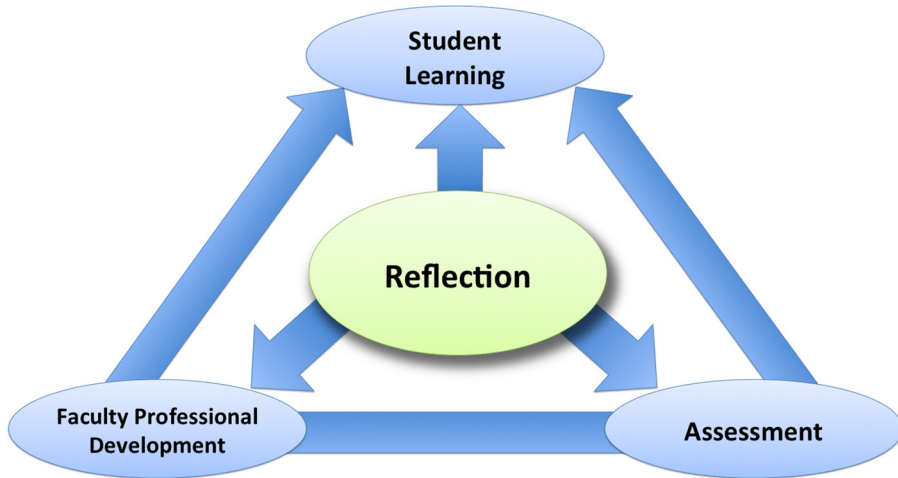


Fig. 2. Model of reflection in higher education.

Galea, 2012; Grossman, 2009). To address these issues, in this final section, we present a model of how reflective writing might be used within the context of higher education.

Fig. 2 is a visual representation of the three-fold benefit of reflection.

We place reflection at the center of multiple activities of critical importance to educational progress. Our model shows the connections between these types of activities, all of which contribute to student learning. Since learning is the goal of education, student learning sits at the top of the model. Faculty professional development has to occur in order for reflection to be effectively taught; assessment has to occur to help us understand and improve our effectiveness in encouraging student learning.

As our case study has indicated, reflection as a means of assessment, student learning, and faculty professional development has opened up a host of enriching possibilities for our GE and disciplinary curricula. When students are asked to reflect upon their learning, they are encouraged to understand the goals of our curriculum, to build connections between learning contexts that facilitate transfer, and to develop metacognitive skills. Faculty across the university can use reflections as part of their larger program assessment and as a means of understanding how to improve teaching practices. Reflection can be paired with other kinds of class activities or assessment measures to provide a broader view of student learning.

Reflection can have a place in the many disciplines that comprise the higher education curriculum. We encourage those seeking further resources for incorporating reflection to examine the work of Fernsten and Fernsten (2005), who compiled guidelines for effective reflection assignments with successful and unsuccessful examples of reflections from diverse disciplines and Yancey (1998) for descriptions of using reflection as part of writing courses. Grossman (2009) work is also an excellent reference guide for incorporating reflection into GE courses.

Reflection allows us to understand learning and adapt to its challenges. Like looking in a mirror, reflections give us an additional way of seeing and a new way of talking about learning with our students, colleagues, and administrators. Student reflections can help us better understand how our students approach learning tasks. More importantly, reflections can reveal students' beliefs and values about those tasks—both of which are critical to understanding student learning behaviors. Because one of the goals of writing programs is to encourage student learning in a wide variety of domains and purposes, we see reflection as central to that goal. As we have argued in this article, investing in carefully scaffolded reflection can yield a three-fold benefit for teaching, learning, and assessment in a variety of academic settings.

Appendix A. Writing process reflection assignment and assessment rubric

Studies show that reflecting on your writing process can greatly aid you in becoming a better writer. In a 600–800 word reflective essay, please answer the following questions about your experiences in completing this assignment.

- (1) Please describe your writing process for this assignment. This may include prewriting, drafting, revising, editing, and collaboration.
- (2) Please describe your research process for this assignment. This may include locating, evaluating, and integrating sources.
- (3) What are the strengths of your writing in this assignment?
- (4) What parts of your writing in this assignment did you struggle with?
- (5) What did you learn from this writing assignment?

Reading Scale Note: Consider level of detail and depth of insight

1 = Not there; completely “off”; 2 = Poor; 3 = Average; 4 = Good; 5 = Excellent

1. Writing process					
a. Engagement in prewriting techniques*	1	2	3	4	5
b. Evidence of revision* (include diction)	1	2	3	4	5
c. Evidence of editing/proofreading* (surface)	1	2	3	4	5
d. Evidence of peer review (in class or online)	1	2	3	4	5
e. Evidence of faculty interaction (conferences)	No				Yes
f. Evidence of writing center visit	No				Yes
2. Research process					
a. Evidence of locating peer-reviewed sources using the library (including databases)	1	2	3	4	5
b. Evidence of selecting and evaluating sources	1	2	3	4	5
c. Evidence of integrating sources in APA format	1	2	3	4	5
3. Self-evaluation					
a. Self-evaluation of strengths of writer	1	2	3	4	5
b. Self-evaluation of weaknesses of writer	1	2	3	4	5
c. Self-evaluation of quality of learning		2	3	4	5
i. Learning about writing and rhetoric	1	2	3	4	5
ii. Learning about research paper topic	1	2	3	4	5
4. Overall quality of reflection (non-cumulative; holistic “grade”)	1	2	3	4	5

* General education student learning outcomes.

Is collaboration is mentioned? Y/N

Appendix B. Research paper assessment rubric

		1	2	3	4	5
TOPIC	Appropriate for college-level inquiry	No apparent focus; Does not respond to assignment	Weak response to assignment; Lacks intellectual depth	Simplistic treatment of complex issue	Recognizes & addresses complexities of an issue	Nuanced topic; Demonstrates intellectual depth; Awareness of kairos
	Thesis (problem statement; research question)	Never stated; Not clearly implied	Weak argument or shallow inquiry (statement of fact)	Makes a general claim; Developing inquiry or argument	Specific, focused inquiry or argument	Complex argument; Nuanced inquiry
AUDIENCE	Organizational strategies (structure; coherence)	No intro/conclusion; Disorganized; Lacks understanding of paragraphing	Lacks coherence; Paragraphs are disconnected (lists or "boxcars")	Paragraphs or sections clearly connected; Provides transitions	Purposeful arrangement; Could be improved by moving 1–2¶s	Rhetorically effective organization
	Synthesis (thematic development; reader-centered)	Fewer than 2 sources used; No synthesis; No context provided	Comp/contrast of single-source ¶s; Identifies sources w/out discussion	2+ sources per ¶ or section; Provides source info/authors' credentials	Makes explicit connections among sources; Identifies orig. aud./purpose	Thematic presentation of source material; Detailed context
CONTEXT	Appropriate sources for academic writing	No outside sources (only course texts used)	Insufficient sources for academic context	Includes mixture of strong/weak sources	Strong but not discipline-focused sources	Academically credible/scholarly sources
	Appropriate use of citation conventions (APA)	Lacks understanding of documentation; No references pg.	Missing in-text citations; In-text & ref. citations don't match or not used	Pattern of error(s) in APA in-text or reference citations	Occasional inconsistencies in APA in-text citation or reference format	Consistently correct APA in-text and reference citations
PURPOSE	Critical analysis of source material; Manages multiple viewpoints	Misappropriation or misinterpretation of sources; Personal bias	No commentary; Multiple viewpoints not recognized	Minimal analysis of sources; Simplistic evaluation	Analyzes multiple views using sources	Critical evaluation & interpretation; Fair & ethical representation
	Source material used as evidence to support a claim	Inappropriate use of sources; Irrelevant info.; No argument or findings	Only repeats the arguments or findings of others	Source material discussed in relation to claims	Evidence of strategic selection of source material (logos/pathos/ethos)	Strategic presentation of source material targeted to aud.
ETHOS	Appropriate tone/register; Non-biased use of language	Biased language; Unsupported judgments	Immature or inappropriate language; Unsuitable tone	Shifts in person or tone across sections of the paper	Generally appropriate level of formality with occasional lapses	Maintains respectful, professional language
	Evidence of editing/proofreading	Language errors interfere with meaning-making	Number/type of errors distorts probable meaning	Noticeable pattern of error distracts readers	Occasional lapses in surface correctness	Polished, nearly error-free

Appendix C. Codes for extended analysis of weak and strong reflective essays

Understanding Writing Process

- **Describing Writing Process (What):** Students describe their writing process (usually step by step; e.g., first I did this, then I did this, then I did that).
- **Describing and Evaluating Writing Process Choices (Why/Effectiveness):** Students not only describe their writing process, but describe the choices that they made and why they made them and/or describe the perceived effectiveness of their process.
- **Learning about Writing (Higher Order):** Students describe learning about a higher-order writing concern: synthesis, organization, genre, rhetorical awareness, etc.; the importance of revision, collaboration, etc.
- **Learning about Writing (Lower Order):** Students describe learning about a lower-order writing concern: wording, spelling, punctuation, grammar, formatting a references page.
- **Learning about Citation Practices:** Students discuss APA citation or general citation style.

Understanding Research Process

- **Describing Research Process (What):** Students describe their research process (usually step by step; e.g., first I did this, then I did this, then I did that).
- **Describing and Evaluating Research Process Choices (Why/Effectiveness):** Students not only describe their research process, but describe the choices that they made and why they made them and/or describe the perceived effectiveness of their process.
- **Learning about Research (General/Specific):** Students describe learning about research practices, such as searching, evaluating, library databases, etc.
- **Learning about Topic (General/Specific):** Students describe learning something new about the topic of their paper.

Transfer of Learning

- **Prior Knowledge (General/Specific):** Students describe using and adapting prior knowledge effectively.
- **Current Knowledge (General/Specific):** Students connect learning to other current contexts, including current coursework, their personal or civic lives, their workplace (e.g., “I used my multimedia writing skills to help my church put together a newsletter.”)
- **Future Knowledge (General/Specific):** Students anticipate new contexts where they will use writing knowledge/skills (e.g., “I know I will need to write a senior honors thesis; the research skills I learned in this class will aid me there.”)
- **Engagement:** Students adopt a different view of themselves as a learner, express openness to new learning, recognize how they learn best; identify problems that are occurring (such as when they need to seek help, when a strategy isn't working), recognize strengths and weaknesses, and/or evaluate past learning.

Lack of Transfer/Negative Transfer

- **Emphasizing Differences:** Students describe difficulty or challenges because of past experiences (e.g., “Because this paper was longer than anything I wrote, I was intimidated to begin.”)
- **Failed Application of Strategy:** Students describe applying a previously learned strategy or technique that was not appropriate (e.g., 5 paragraph organization for 10 page paper)
- **Resistance:** Students deny learning or see learning as a game, just for getting a grade, etc.

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Elizabeth G. Allan, PhD, is an Assistant Professor of Writing and Rhetoric at Oakland University. Her research interests include writing across the curriculum/writing in the disciplines, writing pedagogy, literacy studies, and multimodal rhetorics in disciplinary contexts. She currently teaches courses in first-year writing, ethnography, and the histories of Western rhetorics.

Dana Lynn Driscoll, PhD, is an Assistant Professor of Writing and Rhetoric at Oakland University. There, she teaches first-year writing, peer tutoring in composition, global rhetoric, and courses in writing and rhetoric. Her research interests include transfer of learning, research methodologies, and writing centers.