

LESSONS FROM THE CORE ASSESSMENT WRITING FELLOWS PROJECT

A WRITING-TO-LEARN AND WRITING-ACROSS-THE-CURRICULUM INTERVENTION

SUMMARY

An intervention was launched in the summer of 2018, aimed at improving student learning by improving the quality of writing experiences encountered in core classes. Over the subsequent year, the initiative trained twelve writing fellows. Although the size the cadre was small, the impacts were notable. Students of writing fellows saw significantly better results on benchmark criteria in core curriculum assessments for *Communication* and *Critical Thinking*, compared with students of non-fellows, both in 2018-19 and three years later in 2021-22. One participant co-authored a paper with the writing fellow mentor and published it in *American Biology Teacher*. Insights from this initiative were also shared with faculty at TWU's 2022 Assessment Summit. This report aims to identify some of the major takeaways from the fellowships and walk readers through a few examples. Pandemic, budgetary, and accreditation effects (in roughly that chronological order) have kept the program in hibernation since 2019. However, with funding now restored, the Office of Academic Assessment and Accreditation expects to relaunch the initiative in Fall 2022.

CONTENTS

Summary	1
Background & Rationale.....	2
Faculty Participants	3
Impacts.....	4
Primary Recommendations.....	6
Starting Points	7
Assignment Examples.....	8
Art.....	8
The Goal: "Train up" Students for an Analytical Final Paper.....	8
Descriptive Exercises	9
Comparison Exercises.....	10
The Forensic Exercise	10
The Final Project.....	10
A Note on Grading.....	10
Biology.....	11
The Goal: Train Students to Better Evaluate Online Sources on Scientific Topics	11
team topics.....	11

Modeling the Activity (In-Class).....	11
Students Apply the Form (In-Class)	11
Teams Complete the Form (Outside of Class)	12
Team Review Exchange (In-Class)	12
Individual Reflections (In- or Outside-of Class)	13
Individual Student Analyses	14
Grading	14
Contact Information	14

BACKGROUND & RATIONALE

The core objectives of *Communication* and *Critical Thinking* play a central role in the Texas Core Curriculum, being the only two (out of six) core objectives that apply to every part of the core, from History to Mathematics.

Faculty on the Undergraduate Council’s assessment committee, and in the Council more broadly, embraced a focus on *Reading and Writing across the Core* as a theme for focused intervention on improving learning in core classes. Not only are reading and writing of critical importance in and of themselves, but they are also foundational to learning other content and skills offered by core classes. It is difficult to learn from assigned readings without solid comprehension skills. Writing activities can result in intensive learning experiences, but these activities need to be assigned often if students are to improve at them, and students need to engage in them authentically to see any gains, which often means students need to believe that writing matters to faculty.

Accordingly, Undergraduate Council embraced several early efforts at emphasizing reading and writing:

1. The assessment committee, with approval by Undergraduate Council in 2017-18, designated a baker’s dozen criteria as [Reading and Writing across the Core](#) criteria (in a few cases creating new criteria to fit the bill, forging them out of partial or unsatisfying criteria elsewhere in our core rubrics). Those core criteria comprise the following:
 - a. Use of Evidence
 - b. Evidence Analysis
 - c. Content Development
 - d. Audience-Appropriate Approach & Structure
 - e. Define Problem
 - f. Data Interpretation
 - g. Access & Use Information Ethically & Legally
 - h. Evaluate Information and Its Sources Critically
 - i. Apply Knowledge to Social Issues
 - j. Use Multiple Perspectives in Problem Solving
 - k. Apply Criteria through Peer Review
 - l. Clarity of Peer Review
 - m. Comprehension
2. To ensure faculty might give these criteria more focus, each was made cross-cutting. Clarity of Peer Review became both a *Communication* skill and a *Teamwork* skill. Use Multiple Perspectives in Problem Solving fell

under both *Teamwork* and *Critical Thinking*. As a result, it became feasible for an assignment designed to meet Communication and Critical Thinking objectives in year one of an assessment cycle to also be designed to meet *Empirical & Quantitative Skills* in year two, if the assignment were designed while looking ahead at suitable criteria.

3. In Fall 2017, the Office of Academic Assessment distributed copies of **John C. Bean's *Engaging Ideas*** (second edition) to every core curriculum faculty member, 194 faculty in all. Additional copies were distributed to members of the Undergraduate Council's assessment committee. Among scholars of writing, Bean's book is considered a landmark guide to writing across the curriculum and writing to learn. As explained in the [letter](#) distributed with the book, the book is the "leading response on two refrains common among faculty: 1) Students need to write more! [... and] 2) I don't think I can assign more writing!" The letter also directed faculty attention to several pages in the book where they could get started, so they could better see how it is a toolbox for figuring out how to assign more writing—learning-intensive writing—without the instructor drowning in mountains of grading.
4. Dr. Gray Scott, then assistant director of Academic Assessment, had for the five years leading up to Spring 2016, been the director of the First-Year Composition program at TWU. He had experience teaching business writing, science writing, and writing for computer science majors. So, in connection with the distribution of the book, working through the university's Center for Faculty Excellence, he conducted a workshop in November 2017 titled "[More Student Writing, Less Faculty Stress.](#)"

The basic tenets behind this presentation and the book mentioned before—that low-stakes, thinking-intensive, writing-to-learn activities have transformative power—form the backbone of the Fellows program described in this report. In the wake of the above interventions, the Office of Academic Assessment proposed a Writing Fellows program. As part of the program, faculty would receive stipends to revise class activities or assignments in collaboration with Dr. Scott to make those assignments better scaffolded, center them on writing-to-learn effects, and ensure a manageable grading workload.

FACULTY PARTICIPANTS

The Writing Fellows initiative had eight participants in its first term, Summer 2018, although one participant from math had to drop out after a week. In the Spring 2019 term, the initiative took on five more fellows.

Most of the participants applied for fellowships, and those teaching (or affecting the teaching of) large swaths of the core curriculum were prioritized among applicants. Selected applicants included a range of disciplines and faculty classifications:

- Five adjunct faculty
- Two associate professors
- Two associate clinical professors
- One full professor
- Disciplines:
 - Biology
 - History
 - Kinesiology
 - Mathematics
 - Music
 - Sociology

- Visual Arts

In addition, the Office directly recruited two program coordinators for strategic reasons: the director of the first-year experience seminars (UNIV 1231 courses), because so many students in the core curriculum take them; and the director of the First-Year Composition program, who already knew the research on writing across the curriculum by virtue of her own expertise, but who agreed with the principle of the program and agreed that once she knew how the other fellowships were run, she would help mentor future fellows, and thus help to expand the program.

In the long run, neither of the latter two efforts worked out, through no fault of anyone. New leadership in UNIV 1231 has a different vision for those seminars. Meanwhile, the tragic and untimely loss of our First-Year Composition director left the program disconnected from this effort for some time. The pool of applicant participants has also suffered some attrition, with one retirement and one departure.

Despite the foregoing paragraph, however, results from the participants who remain have proven promising.

IMPACTS

Notable differences in performance appeared on our short list of benchmark criteria, between the students of writing fellows and those of non-fellows for both AY 2018-19 ($N = 7,621$ total ratings) and AY 2021-22 ($N = 2,707$). We selected two years in which the same objectives were rated because the range of classes, students, assignments, and faculty would be more comparable than if we compared performances from a *Communication* year to an *Empirical* year. The term *benchmark criteria* refers to those criteria from the core curriculum rubric for which rater reliability has tended to be highest over time, and for the purposes of this analysis, we focused only on benchmark criteria for the *Communication* and *Critical Thinking* objectives.

For AY 2018-19, students of fellows experienced statistically significantly higher scores ($M = 2.19, SD = .78$) in a one-tailed comparison than the students of non-fellows, $t(447) = 5.82, p < .001$. A small, positive effect size was observed relative to non-fellow results ($d = 0.30, CI.95 .27, .32$).

In the 2021-22 academic year, after a year and a half without fellow funding and following the departure and retirements of several fellows, the effect size slipped somewhat ($d = .20, CI.95 .16, .24$), but mean performance from students in fellows courses ($M = 2.39, SD = .69$) remained significantly better than in non-fellow courses, $t(155) = 2.29, p = .011$.

In the table below, some criteria have no data for fellow performance because no fellow-taught students were assessed on them that year. For both major objectives, in both assessed years, students of fellows outperformed students of non-fellows. On five criteria within the objectives, this trend was reversed, though not every year: Central Message (in 2021-22); Define Problem (both years); Evaluate Information and Its Sources Critically (2018-19 only); Existing Knowledge, Research and Views (both years); Use of Evidence (2021-22).

Objective Year	Average Rating	
	Non-Fellow	Fellow
Benchmark Criteria		
Communication	2.07	2.31
2018-19	1.97	2.27
Central Message	2.01	2.21
Comprehension	2.13	2.39
Content Development	1.84	1.86

Data Interpretation	2.01	2.36
Explanation of Issues	1.93	2.29
2021-22	2.32	2.44
Central Message	2.42	2.39
Comprehension	2.29	
Content Development	2.20	2.30
Data Interpretation	2.47	3.00
Explanation of Issues	2.32	2.52
Critical Thinking	2.01	2.14
2018-19	1.94	2.08
Apply Disciplinary Knowledge	2.02	2.02
Apply Disciplinary Methods	1.95	
Define Problem	1.84	
Evaluate Information and its Sources Critically	1.79	1.72
Evidence Analysis	1.99	2.38
Existing Knowledge, Research, and/or Views	1.90	1.43
Propose Solutions/Hypotheses	2.31	
Use of Evidence	1.80	2.29
2021-22	2.19	2.31
Apply Criteria through Peer Review	2.44	
Apply Disciplinary Knowledge	2.26	2.29
Apply Disciplinary Methods	2.34	2.75
Define Problem	2.56	2.43
Evaluate Information and its Sources Critically	1.96	2.00
Evidence Analysis	2.12	
Existing Knowledge, Research, and/or Views	2.18	2.00
Propose Solutions/Hypotheses	2.27	
Use of Evidence	2.06	2.00
Grand Total	2.04	2.24

It would be remiss to ignore the criteria identified at the start of this report, the *Reading and Writing across the Core* criteria. Many of these appear among the benchmark criteria above, but the Venn diagram overlap falls short of a total eclipse. It must be stressed, however, that even though fellows did as well in these comparisons as in those above, any criteria listed below that does not rank among benchmark criteria has a history of rater reliability challenges and thus may include more “noise” than other data do. We have denoted such criteria in **red print**. In all but three of these cases, no students of fellows were rated on the criteria in question, so there is no basis for comparison. In the three cases where comparison is possible, fellow-taught students lagged behind non-fellow peers on Access and Use Information Ethically and Legally in the inaugural year of the initiative, while fellow-taught students tied in 2018-19 and outperformed in 2021-22 on Audience-Appropriate Approach and Structure.

Average of Value	Column Labels	
Row Labels		Fellow
Communication	2.04	2.25
2018-19	1.95	2.19
Access and Use Information Ethically and Legally	1.81	1.56
Audience-Appropriate Approach & Structure	1.86	1.86
Clarity of Peer Review	2.00	
Comprehension	2.13	2.39
Content Development	1.84	1.86
Data Interpretation	2.01	2.36
Explanation of Issues	1.93	2.29
2021-22	2.29	2.48
Access and Use Information Ethically and Legally	1.95	
Audience-Appropriate Approach & Structure	2.38	2.67
Clarity of Peer Review	2.25	
Comprehension	2.29	
Content Development	2.20	2.30
Data Interpretation	2.47	3.00
Explanation of Issues	2.32	2.52
Critical Thinking	1.95	2.23
2018-19	1.86	2.21
Apply Knowledge to Social Issues	1.80	
Define Problem	1.84	
Evaluate Information and its Sources Critically	1.79	1.72
Evidence Analysis	1.99	2.38
Use of Evidence	1.80	2.29
2021-22	2.16	2.28
Apply Criteria through Peer Review	2.44	
Apply Knowledge to Social Issues	2.28	
Define Problem	2.56	2.43
Evaluate Information and its Sources Critically	1.96	2.00
Evidence Analysis	2.12	
Use of Evidence	2.06	2.00
Grand Total	2.01	2.24

PRIMARY RECOMMENDATIONS

- The goal is to get students to think, and re-think, on paper.** Teachers will remember this effect: If you've ever reached the third or fourth page in something you were writing and been struck by a thought you wish you'd had three pages earlier, you're not alone. This is what the brain does. Give it enough time to play with a question, and it starts to come up with new insights. As you explain your ideas to someone else on paper, you explain them to yourself, rethink them, and come up with better ideas. If you want to sharpen students' thinking, your goal

isn't to have perfect text; it's to get students to those page-three ideas. Messy writing experiences can be fruitful.

- **Although we've been conditioned to expect it, faculty don't have to give feedback on everything, and it might be better if they didn't.** Writing credit in a class can be based on participation, scored credit/no-credit. Students treat writing as meaningful not because it's graded but because they or the class use it in some way. Team-Based Learning and flipped classroom exercises make use of this by using take-home writing as buy-in for in-class activities: you can only join a prepared team in-class if you are yourself prepared. Faculty can collect examples to discuss on overhead without talking about every written artifact. Students in some classes may, during tests, use any typed, original notes that fill no more than one sheet of paper, as long as they submit these along with the test.
- **Many of our fellows have arrived at remarkably simple strategy, one that we'll elaborate on later:** They stop looking for organization, genre conventions, and polish. They stop asking for a "paper," in the sense of a single cohesive narrative. Instead, they give students what we will call *Analytically Scaffolded Forms* to fill out: a series of questions and boxes to fill in that accumulate toward something like an informed thesis by the end of the experience. Students are often filled with dread and anxiety when given an assignment like an "analytical essay" because they do not trust their minds to do that kind of heavy thinking. It is hard to imagine having thoughts that you do not already have. Until you practice having those thoughts, it remains difficult to imagine. Analytically Scaffolded Forms walk students through a thought process, demystify the practice of thinking, and boost student self-efficacy when it comes to analytical activities.

STARTING POINTS

Below are some key texts that the fellowships have frequently drawn on. We've included some indications of what you can find in each.

John C. Bean. *Engaging Ideas*, 3rd Edition. Jossey-Bass, 2021. ISBN: 1119705401. Our fellows used the second edition, but it's in its third edition now. This book is the backbone of the fellows program because it specifically considers faculty from across the curriculum and is filled with real examples of writing assignments and activities from a variety of disciplines, including math and science. Several chapters are devoted to mythbusting and will lower the blood pressure of any instructor worried that they cannot assign more writing. You do not need to be an expert on grammar. You do not need to comment on everything, or even grade everything that students write. One of our fellows rebuilt his entire syllabus around activities from this book.

George Hillocks, Jr. *Research on Written Composition*. National Council of Teachers of English, 1986. This landmark study of methods that work in the teaching of writing is still frequently cited today. It is now available for free online through the ERIC database. (See link.) The first half of the book is a comprehensive literature review of several decades of research on the teaching of writing, particularly of case studies and empirical designs involving control groups or pre-test/post-test designs. Although there have been insights and advancements since this book was published (because of course there have been), the observations within this review retain their currency today. They have been added to, rather than superseded. Most of these insights will appear cutting-edge to people not already immersed in composition research. The second half of this book is a series of meta-analyses on various topics: What happens when a writing class emphasizes inquiry? (Good things.) What happens when a writing class emphasizes grammar? (Students get worse at writing. Yes, that seems counter-intuitive, but it's been held up through later meta-analyses, in 2007 and 2012.) How effective is free-writing? (It's ... okay.) What about teaching students to use scales and score each other's writing? (Pretty good.) The target audience of this meta-analysis section is a rare breed: there are not many language nerds who love

final free modifiers who also read statistics. But if you can understand the section, it is full of valuable insights. And if you are the kind of reader who might appreciate this kind of discussion, we might point you to what Hillocks calls the *environmental mode* of teaching writing. We have seen graduate students adopt this approach, and it is powerful. It is not, however, intuitive.

Carol Sager. “[Improving the Quality of Written Composition through Pupil Use of Rating Scale.](#)” *National Council of Teachers of English*, 1973. Associated document: [The Sager Rating Scale](#). Sager trained elementary school children to rate compositions based on simple, single-criterion rubrics. For instance, she would train children to rate descriptions on a simple, 1 through 3, scale for quality of descriptions. They would practice rating descriptions and making recommendations for how a level 2 description might be raised to level 3 (or from level 1 to level 2). Large, complex rubrics are tough to master. But a single-criterion rubric with only a few performance levels is accessible, even to sixth graders. Once students mastered giving feedback with the scale, she had them write their own descriptions, give each other feedback, and rewrite. Effect sizes on studies using these methods (Hillocks, above, calculates Sager’s own effect size at .93) dwarf effect sizes from most other writing instruction, which tend to hover around .2. Sager scales are well-suited for low-stakes, lesson-focused, writing-to-learn activities. What does a good abstract look like for a scientific study? What does a good methods section look like? What does a good written explanation look like for the kind of math problems you’re assigning? With one good example, one promising-but-flawed example, and one weak example, a faculty member has the foundational materials to teach students a scale. If students practice using the scale, giving each other feedback using it, and applying the scale to their work, benefits are likely to accrue. (A discussion of Sager’s approach appears near the end of a [TEDx Talk](#) by Dr. Scott.)

Gray Scott and Shazia A. Ahmed. “A Writing-to-Learn Approach for Improving Students’ Evaluation of Science Web Sources.” *American Biology Teacher*, 82.9 (2020): 638-640. This article, coauthored by a fellow with the mentor of the fellows program, describes the activities that Dr. Ahmed built for her core-curriculum biology class at TWU. Her goal: to train students to better distinguish between expert and non-expert sources on scientific topics.

ASSIGNMENT EXAMPLES

Below we have included walk-throughs of two assignment sequences created by writing fellows.

ART

THE GOAL: “TRAIN UP” STUDENTS FOR AN ANALYTICAL FINAL PAPER

Dr. Sara Ishii designed a sequence of scaffolded tasks to help build her students’ skills critical to their final written project. The final project, which Dr. Ishii’s exercises build *toward*, will sound straightforward to most faculty: Students choose two works of art from different time periods and/or different cultures. Citing at least two sources per work, students describe each piece of art and compare them, synthesizing their observations.

However, there are several early points of failure for a student faced with this task: If students—few of whom will be art majors—don’t understand elements of art (the basic vocabulary of the field), don’t understand principles of art (the basic grammar of the field), lack practice with a descriptive eye, or lack practice making insightful, analytical, non-obvious comparisons, they can stumble.

Dr. Ishii created [a sequence of writing-to-learn activities](#) to ensure students had practiced all of those things, both in groups and individually, before tackling their final papers.

(1) Artwork artist, title, date, medium, location Vincent van Gogh, "A Wheatfield with Cypress Trees," 1889, oil on canvas, The Metropolitan Museum of Art, NY
(2) Elements of Art: Make a bullet point list of how the artist uses line, shape, value, space, texture, color, time/motion in the artwork. Line <i>Waving and curving lines.</i>
Shape <i>Organic shapes.</i>
Value <i>A wide range of values (bright highlights and dark shadows) but value doesn't create illusionistic three-dimensional shapes.</i>
Space <i>There is a depth of space (foreground, middle ground, and background) and the middle ground dominates the composition.</i>
Texture <i>He creates texture through paint application. Actual ridged texture.</i>

Figure 1. Partial example of instructor's filled-out example for students to use as a model

DESCRIPTIVE EXERCISES

- Students develop early familiarity with the **elements and principles of art** by applying them to short descriptions of single artwork in collaborative groups. Each team completes question forms with scaffolding from three helpful tools:
 - A **glossary** of elements of art
 - A **glossary** of principles of art
 - An **example of the activity's form** (pictured) already filled out by the faculty member, to use as an example or model for their own

description-writing.

- Student teams choose three **elements of art** from the details that they have noted and write detailed two-sentence paragraphs for each. They do the same with **principles of art**. Again, they have the instructor's model to work from. An excerpt:

(3) Choose three elements on the elements of art list. Elaborate on how the artist implements the element of art in the artwork. Try to give as much detail as possible. <u>For each of the three elements, please write at least two sentences.</u> 1. <i>With textured brushstrokes, van Gogh creates several types of lines that characterize the shape and direction of his objects. For example, the sky is composed of swirling lines that create the sense of moving clouds and the wheat field is created with diagonal lines that give the illusion of the wheat stalks being blown in the wind.</i>
--

- Students team up again in-class to repeat the exercise with a new work of art and a new requirement as the content of the class shifts from drawing to painting and printmaking: an added discussion of **medium**. The first time students try most kinds of writing, they struggle at it. They almost always have to try it again before what they learned the first time crystallizes and becomes an approach they can re-use. The purpose of this repetition is to give students this kind of practice, but also to help them get used to the sense of ramping-up expectations, with each iteration adding a new challenge.
- Students then repeat the above descriptive practice two more times in class as course content moves through sculpture and architecture, but this time they do so while working alone, and this time they attempt to synthesize their observations into an organized essay instead of turning in a form. The essay *format* is the new challenge here, but because students have already practiced identifying details and describing them in the language of the artist, they have more room in working memory to solve the organizational problems that will arise.

Throughout this stage of the class, students are writing about new media and new periods, from the classical to the era of film. Put another way: these activities are not displacing course *content* as much as it might sound like they are; instead,

they are giving students a window *into* course content. In lieu of listening to lectures, students are engaging directly with the material of the class.

COMPARISON EXERCISES

After practicing description, students next complete a series of comparison exercises. These activities follow a blueprint similar to that of the descriptive activities above. Again, the exercises start simple and with teams. Students first focus on meaningful similarities, then in a second exercise, focusing on new art, they compare for differences. Then they practice synthesizing the observations and, as team, attempt to write a thesis statement for a paper in which the two works would be compared. To close out this cycle, they write individual in-class essays to practice this kind of comparison alone.

THE FORENSIC EXERCISE

As an advanced exercise employing the above skills like a detective, students are presented with a work of art previously unfamiliar to them. They complete a form in which they make notes about elements, principles, medium, and content. At the end of the form, they try to deduce which movement or period the artwork belongs to and explain why they think this. The exercise is *not* the final project and is not high-stakes. Instead, it provides students with an opportunity to practice their skills in a more playful but also more challenging context.

THE FINAL PROJECT

By now, students have honed their fluency with artistic terminology; have practiced describing artwork in terms of elements, principles, and media; and have practiced comparing works and synthesizing their observations. Now they begin work on their final project, which puts all of these practiced skills together. Even here, Dr. Ishii includes scaffolded process, with a pre-approved list of artistic subjects to choose from and a scheduled rough draft review the week before the final project is due.

A NOTE ON GRADING

The idea of grading so much writing might seem daunting. However, very little of what appears above needs to be graded conventionally. Examples of team answers can be placed on overhead for a plenary discussion of their merits. With evaluation now modeled, teams can exchange worksheets for feedback while the professor marks off who participated, credit/no-credit. Individual write-ups can be followed by individual reflections and self-evaluations: What does the student think she struggled with this time? What does she want to improve on? What strategies might she pursue to obtain improvement?

Items the faculty member feels need to be graded do not need to be graded on a traditional A to F scale. One of the issues with the A to F scale is that so many grade intervals demands more deliberation and then more justification, and thus more time and more commentary by faculty members. (Hillocks, noted above, studies comments and their effects on students, finding that students rarely read comments and to the extent that lavish commenting affects student writing, the primary effect is to make students write less, not better.) Composition scholar Peter Elbow [argues](#) for as few grade categories as one can get away with, for his own part preferring just three: checkmarks for most work, Honors for exemplary work, and a U, for unsatisfactory, for work that falls below expectation.

BIOLOGY

THE GOAL: TRAIN STUDENTS TO BETTER EVALUATE ONLINE SOURCES ON SCIENTIFIC TOPICS

Dr. Shazia Ahmed employed writing-to-learn strategies to help students evaluate online sources of scientific information more critically. [The resulting sequence](#) includes two in-class activities of 20 to 30 minutes each, four steps that students complete outside class, and a final individual capstone assignment.

TEAM TOPICS

In class, teams of two to three students select a controversial article or video from [a preapproved list](#). Groups are encouraged to spread out their choices so that no more than one team tackles the same article or video.

MODELING THE ACTIVITY (IN-CLASS)

The teams do not immediately dive into their chosen articles or videos. Instead, in preparation for class, students read two articles. Neither appears on the students' list of approved topics, as this is for demonstration purposes only. One of these sources is the well-known "dihydrogen monoxide" satire site, and the other is its corresponding debunk on *Snopes.com*. In class, the instructor models how to analyze the two conflicting sources using her Website Analysis Form (table 1), showing how to use the form to tease out important details.

Table 1. The Website Analysis Form

Questions	Initial Source	Opposing Source
1. URL		
2. Author's expertise: (a) What do the authors do, professionally? Are they journalists, scholars, government officials, independent authors?		
(b) Do the authors have the credentials to be experts on the topic?		
(c) What organizations or institutions are the authors affiliated with, if any?		
(d) Is there a conflict of interest for the authors?		
3. Professional scientists are often tentative and specific ("A compound in orange peels may mitigate metabolic syndrome") while less reliable sources are often sweeping, general, and confident ("Eating orange peels can cure cancer!"). What kind of language does your source use? Extreme or cautious? Sweeping or specific?		
4. Looking over your answers above, identify which of the two sources you think is most credible.		
5. In 100–150 words, explain why you think that source is better.		

STUDENTS APPLY THE FORM (IN-CLASS)

Following the above demonstration, each student team evaluates the piece they selected using questions 1 through 3 of the Website Analysis Form (table 1), and only noting details corresponding to the initial source, or left column. Then they find an online source that disagrees with the first source and they note their answers for questions 1 through 3 for that source, too.

TEAMS COMPLETE THE FORM (OUTSIDE OF CLASS)

Outside of class, the teams answer questions 4 and 5 on their own. To encourage an engaged response, the instructor emphasizes in instructions that this is an important *practice stage* for tasks they will be performing later as individuals.

TEAM REVIEW EXCHANGE (IN-CLASS)

Student teams exchange printouts of their sources and their completed forms. Teams then use the Feedback Scale (table 2) to evaluate the responses that they have received from other teams. The feedback scale is a variation on the [Sager scale described earlier](#), and the motive behind this activity is less about students *receiving* feedback and more about their practicing *giving* it. The goal is for students to internalize some of the standards associated with good source evaluation. It is helpful, in fact, to explain this to students, so they know the activity has not failed if they only get back a few brief notes. (*Editor: In fact, I'm lately inclined to tell students that their feedback won't be shared with the teams they're reviewing, so they will be less guarded and more blunt in their discussions. – GS*)

Table 2. Feedback Scale		
Instructions: Working alone at first, evaluate the other team's analysis using the scale below. Then discuss the work with your group and try to reach a consensus on what level the other team reached. As a team, write up a short defense of your judgment, explaining why the analysis received that score and saying what could have been done to reach a higher level. (Even if you decide it's level 3, say how you think it could be improved.)		
Performance Level	Short Description	Description
3	Exemplary	The word <i>exemplary</i> means "a good example for others to follow." An exemplary assignment, then, is something I can show other students in this class as an example of what I would like them to do. In an exemplary evaluation, one of the sources <i>may very well</i> be weak, but the student will have carefully gone through the evaluation process indicated by the form, recording details accurately, documenting in proper citation formats, and taking each step of the evaluation seriously and thoughtfully, resulting in a work that arrives at an informed perspective about the sources evaluated.
2	Satisfactory	What we care about for this assignment is the <i>process</i> by which you evaluate a source. For this reason, work rated <i>satisfactory</i> will follow the recommended evaluation process carefully and thoughtfully, in the spirit of the assignment, even if it might misunderstand some facts or arrive at an incorrect conclusion because the student didn't know something that an expert would have known.
1	Needs Improvement	A <i>needs improvement</i> response fails in some way to engage the evaluation process honestly and completely, often by misconstruing instructions, skipping steps, or taking shortcuts with the steps pursued. It may very well end up with the "right" answer, but the student hasn't demonstrated an understanding of how to evaluate a source with care, and for that reason, more practice is recommended.

INDIVIDUAL REFLECTIONS (IN- OR OUTSIDE-OF CLASS)

Students, working individually either in- or outside-of class, now complete the Reflection Prompt (table 3), a metacognitive, written move designed to facilitate both retention and learning-from-experience.

Table 3. Reflection Prompt	
<p>Instructions: Complete the form below. A good reflective statement will be complete, clear, and honest, but it will also focus more on what the author (you) can learn from an experience than on telling others what they should have learned. You cannot do much to control other people or the circumstances in which you find yourself, but you can control how well you handle those situations. Considering that reality, the best reflections focus on translating the writer’s recent experiences into wisdom they can use in the future.</p>	
Question	Your Answer
<p><i>Set 1: Quick, short answers. These questions are mostly here to jog your thinking, and your first audience for them is yourself. Think of your answers to Set 1 questions as notes that you can draw on in Set 2.</i></p>	
<p>1. Describe something you’ve learned or a new thought you’ve had since doing the research for the main assignment. In particular, we’re interested in what you might have learned about research and sources, but if you learned something else, that’s fine.</p>	
<p>2. Often we learn more when we try to teach others--or while we’re giving them feedback on what they’ve done. What, if anything, became more clear to you while you were evaluating another team’s work?</p>	
<p>3. If you saw their feedback, did you disagree with anything your peer(s) said about your own work? (It’s okay if you do.) Why do you think they were wrong?</p>	
<p>4. Did you learn anything from the feedback you received? If so, what?</p>	
<p>5. Is there anything else you learned through this process that might help you in the future?</p>	
<p><i>Set 2: Overall Reflection. This time you’re writing to your professor, based on your thoughts above. Aim for clarity.</i></p>	
<p>Based on your answers to the above questions, what have you learned or practiced that will help you in your future work, either inside or outside of the classroom?</p>	

INDIVIDUAL STUDENT ANALYSES

Finally, students repeat the above process, this time working alone instead of with a group. They select an article from the list that they have not written about or evaluated yet. They find a source that disagrees with it. They evaluate them using the Website Analysis Form.

GRADING

Except for the final step, the individual student analyses, all of the steps are scored credit/no-credit, as participation and/or class preparation. Virtually all of the feedback is already built into the process, in the form of plenary discussions of examples, team discussions of first efforts, and reflections on these activities. The final step, the individual student analyses, is assessed using the same Feedback Scale that students used for their team-to-team reviews (which is why they practiced with it). For work receiving the lowest rating, the faculty member encourages the student to visit office hours. For work receiving the highest rating, she asks for student permission to share it with the rest of the class as a model, and lessons are thus reinforced by the discussion of those model responses.

CONTACT INFORMATION

For more information about core assessment efforts, consult on writing assignment or activity design for core courses, or learn more about joining our volunteer community of raters, Core Rater Academy, please contact Dr. Gray Scott, associate professor of English and director of academic assessment and accreditation, at grayscott@twu.edu, 940-898-2327.