Assessing the Writing Process: A Review of Current Practice

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Abstract

In this study, we examine the extent to which education agencies and assessment organizations assess the writing process in existing large-scale assessments, and where they do, what aspects of the writing process they assess and what types of assessments they use. Over the past 40 years, standards for teaching and assessing writing have come to emphasize that skilled writers control a rich writing process that includes a variety of skills that may not directly be in evidence in typical assessment contexts. Less progress has been made in extending the scope of writing assessment to cover these skills. We hope that this review will capture a snapshot of the state of the art and sketch some of the issues that need to be addressed in order to reduce the gap between assessment practice and modern understandings of the writing construct.

Key words: writing, assessment, writing assessment, writing process, writing construct, process approach, process data

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"Assessing the writing process" is a compact but dense phrase from which investigations could lead in many different directions. Which direction in particular depends on what is meant by "assessing" and by "the writing process," and even on what is meant by "writing"—not to mention the identity of the persons being assessed, the reasons for the assessment, the place of the assessment, the timing of the assessment, and the means of assessment. All of these factors intersect with and affect one another.

The Scope of This Review

The intent of this research memorandum is to survey current practice among the various states, examining how it is reflected in summative, formative, and more specialized assessments, and to link this practice to recommendations from the research literature. We are concerned with establishing the extent to which the current state of the art goes beyond two traditional forms: indirect writing assessment focused on multiple-choice editing and proofreading questions, and direct writing assessments in which students respond to essay questions within a fixed timeframe. We are particularly interested in the extent to which current practice provides information about students' ability to prewrite, plan, revise, and review their writing.

Within this scope, there are many possible paths we could have explored. In compiling the reference database and annotated bibliography, we have endeavored to keep a primary focus on the practices and perspectives of states and major education agencies. The journalistic questions listed below set out the major considerations that have guided our review.

What

Assessment can take place either for summative or for formative purposes. It can involve either quantitative scores or qualitative evaluation. In general, the annotated bibliography and summary tables included with this report are more concerned with summative assessment and scores, but to the extent that information and research about classroom assessment and qualitative evaluation are relevant and available, they are included.

The term *writing process* most commonly denotes phases involved in producing a final written text or product (e.g., choosing a topic, prewriting, planning, generating ideas, organizing ideas, outlining, obtaining and implementing feedback, editing, revising, perhaps also reflecting back and evaluating one's own work), and this definition is the one that guided our selection of references, annotations, and other information. However, the concept of the writing process has a

complex history and may mean several different, if related, things. For instance, the writing process could also refer to the unconscious or subconscious mechanical, psychological, cognitive, and other processes that underlie the conscious phases of producing a text (e.g., Deane et al., 2008). Even the term *writing* can be interpreted with some latitude. These lines of inquiry bear on alternative assessments. (See the Who section.)

In some contexts, "the writing process" may be used to describe what people do when they write, with very few theoretical assumptions imposed. Various empirical studies have looked at the writing process viewed in this broad light, such as Perl (1979, 1980, 1984), who used speak-aloud methods for studying what writers are doing while they write. Empirical studies of writing behavior have tended to identify specific phases of the writing process (Flower & Hayes, 1980a; Galbraith, 2009; Odell, 1980, Sommers, 1980), including prewriting, planning, and rewriting, which can be subdivided into such subactivities as revision, editing, and proofreading.

Given these kinds of empirical studies, psychological theories of the writing process have been developed. Hayes and Flower (1980) and Flower and Hayes (1980b) provide one of the seminal examples, though a variety of other proposed models highlight the role of working memory and attention. Most theories emphasize the critical role of metacognitive control, which enables writers to monitor their own performance (Bereiter & Scardamalia, 1987; Berninger & Swanson, 1994; Hayes, 2012; Kellogg, 2001a, 2001b; Kellogg & Mueller, 1993; Kellogg & Whiteford, 2012; McCutchen, 1996, 2011).

In the context of writing instruction, however, it is more common to use the phrase "the writing process" prescriptively to define a method for teaching students how to conduct extended writing projects (Calkins, 1986; Graham & Sandmel, 2011; Pritchard & Honeycutt, 2007). For the most part, it is this concept of the writing process that underlies most attempts to assess "the writing process," and that will be to a large extent how we focus this review.

Between the unconscious and conscious aspects of writing lies the use of handwriting versus keyboarding to produce text. One could argue (as the National Association of State Boards of Education does, cf. NASBE, 2012) that the mode—handwritten versus typed—is also an important part of the writing process. There is certainly evidence that lack of fluency and accuracy in such transcription skills can seriously limit the writing performance, especially of

disadvantaged students (Alves, Limpo, Fidalgo, Carvalhais, & Castro, 2016; Berninger, 1992; Connelly, Campbell, MacLean, & Barnes, 2006; Graham & Harris, 2000).

Yet another wrinkle is the recent emphasis on research skills, such as evaluating the reliability of sources, and on writing based on analysis of source texts—especially in the Common Core State Standards (http://www.corestandards.org/) on which many state assessments are based. This emphasis raises the question of the extent to which research activities may be part of the writing process. Of course, research activities and an extended writing process can occur separately: A writer could go through all the traditional phases of the writing process without conducting outside research, just relying on background knowledge, or a researcher could conduct extensive exploration of sources without ever writing up the results. Yet, when the content of the writing product depends on external source materials, the two processes are often intertwined. These issues are particularly important when we consider written communication standards at the college level or when we consider the specific expectations of research-based writing (Sparks, Song, Brantley, & Liu, 2014), which, although not the only major type of writing students are expected to learn, is one of the major targets of preparation for college and career (Sparks & Deane, 2015).

Who

For the purposes of this report, we are primarily concerned with students in primary and secondary schools (K–12) and specifically with three main subcategories:

- students in mainstream/general education who speak English as a first language

- English language learners, and

- students with significant cognitive disabilities.

Not only are these the categories that states and the federal government designate for formal assessment purposes, and for which large-scale tests are designed, but they also shape the way in which one might define the writing process. (Note that the first category includes students who can take mainstream tests with accommodations and that sometimes the second and third categories overlap. Federal law limits alternative assessment for students in the third category to 1% of that state's student population unless the state obtains a waiver.)

For the first category—at least after the earliest grades—the common definition of the writing process and its various stages is useful. For the second category, an additional layer of

translation is part of the process until English is mastered. For the third category, the writing process may also include mastering the first stages of writing, such as connecting words and pictures, being able to use writing implements, translating spoken language into text, recognizing the basic elements of written text, and deploying other precursor skills that for mainstream students more readily become automated and subconscious. The writing process in these cases may even refer to the amount of support and prompting that is needed for the student with serious cognitive disabilities to perform any of these writing tasks.

Why

Purpose is, of course, the chief determinant of any assessment, although an assessment may have multiple purposes. For states, one important consideration is fulfilling the accountability requirements of the 2015 Every Student Succeeds Act (ESSA), which mandates testing students in Grades 3–8 and once in high school in reading or English language arts (ELA) (in addition to other subjects). Although almost all states do include writing in their accountability assessments, it is not a federal mandate. Inclusion of writing is thus a response to other considerations, such as the inclusion of writing as a high priority within standards for ELA.

The logistics of assessment also plays a role. Summative assessments are typically administered within a narrow time window, which may allow for essay questions and other forms of direct writing assessment but leaves little room for extended writing projects that incorporate research, collaboration, and extensive review and revision. Whereas less information is available about interim and local assessments, extended writing tasks are more easily enacted in the classroom, which suggests that skills involving/surrounding the writing process may be easier to assess in formative contexts.

Where

As mentioned above, states usually conduct assessment of writing for accountability purposes, whereas districts and individual schools would be more likely to focus on formative assessment. However, with the latitude granted to states under the ESSA, some of the summative assessment for federal accountability may devolve to local districts.

Location also makes a difference in terms of resources and politics that shape assessment policy. States with greater financial resources may have more money to invest in such apparent luxuries as attention to the writing process via untimed or portfolio assessment. States such as

Arizona, which highlights its repeal of the Common Core State Standards on the front page of its Department of Education website, might (at least in theory) shy away from the consortium's standards for writing and research processes.

When

Temporality has two dimensions here: student grade levels and when during the year an assessment occurs. At the lower grade levels, the very basic aspects of the writing process might be introduced, whereas by high school, students might be presumed to have learned all the conventional phases of the writing process. Portfolio assessments that take place over the academic year, as opposed to just at the end of the year, might also be more likely to examine mastery of components of the writing process.

How

The means by which the writing process might be assessed can also be dissected into different aspects. First is the question of standards on which the writing assessments are based; if the standards call for mastering the components of the writing process, tests or other assessments are more likely to follow suit. Second, the assessments themselves might be conducted online or via paper and pencil, might rely on human or automated essay scoring, and might consist of anything from a single test to an entire portfolio. They might attempt to measure the writing process indirectly, via selected-response (SR) questions (including sophisticated computer-enabled versions), or directly via short and extended constructed-response (CR) questions and essays. At the most direct, the assessments might include extensive artifacts of the student's actual writing process, such as outlines, graphic organizers, drafts, feedback, and intermediate revisions as well as the final written product.

Method

To obtain a clearer picture of the state of the art, we began by reviewing the relevant scholarly literature. We searched EBSCO and Google Scholar using terms related to the writing process and assessment as well as to portfolios. We conducted a more focused search through issues of journals devoted to the relevant topics, specifically, *Assessing Writing*, *Journal of Writing Assessment*, and *Journal of Writing Research.* We then surveyed publicly available information from states and major educational assessment organizations. This included in-depth

exploration of the websites for all multistate assessments listed in Appendix A; analyses of the Department of Education website for each state, territory, or other entity listed in Appendix B; and examination of position statements from relevant organizations, such as the National Council of Teachers of English (NCTE). It also included examination of major standards documentation, such as the Common Core State Standards or the New York State Next Generation English Language Arts Learning Standards and Mathematics Learning Standards (Council of Chief State School Officers [CCSSO] & National Governors Association [NGA], 2010; New York State Education Department, 2017).

Our major concerns were to identify the extent to which both writing standards and current assessment practice include (or exclude) aspects of the writing process and to identify methods that have been proposed to provide for its assessment.

Findings

Official Policies, Positions, and Frameworks That Address Assessing the Writing Process

Because focusing on the conventional stages of the writing process is the exception rather than the rule in assessment, relatively few major statements or public positions have been set forth on this topic. However, a great deal can be gleaned from the most important policy statements and standards documents that address writing, some of which are focused more on teaching and some of which are more focused on assessment.

Given that the goal of K–12 education is to prepare students for college and career, the *Framework for Success in Postsecondary Writing*, jointly developed in 2001 by the Council of Writing Program Administrators (CWPA), the NCTE, and the National Writing Project (NWP), bears close consideration. This document targets the habits of mind that writing instruction should develop (curiosity, openness, engagement, creativity, persistence, responsibility, flexibility, and metacognition) and identifies five classes of skills that teachers should work to develop in their students: rhetorical knowledge, critical thinking, strategic control of writing processes, knowledge of conventions, and ability to compose in multiple environments.

In its discussion of writing processes, the *Framework for Success in Postsecondary Writing* emphasizes that writing processes need to be flexible and recursive and that students need practice in all aspects of writing, including invention (brainstorming and generating ideas), research, drafting, getting and giving feedback, revising based upon reviews provided by peers or

editors, and editing. However, this document does not directly address how writing should be assessed.

In its role as representative for teachers of English across the country, the NCTE promulgates policy statements about ELA standards and also specifically about writing assessment, including assessment in the classroom. In its ELA standards document, the NCTE emphasizes that students should learn to "employ a wide range of strategies as they write and use different writing process elements appropriately to communicate with different audiences for a variety of purposes" (International Reading Association & National Council of Teachers of English, 1996). A companion, *Standards for the Assessment of Reading and Writing* (Task Force on Assessment of the International Reading Association, 2009), does not explicitly address writing processes. However, it emphasizes the social nature of reading and writing, the complexity and variety of the writing tasks people need to learn to accomplish, and the need for assessments to capture aspects of this complexity in order to provide valid assessment.

A joint document on writing assessment prepared by the NCTE and the Conference on College Composition and Communication (CCCC; 2014) emphasizes that "best assessment practice supports and harmonizes with what practice and research have demonstrated to be effective ways of teaching writing" and contends that "[e]ssay tests that ask students to form and articulate opinions about some important issue, for instance, without time to reflect, talk to others, read on the subject, revise, and have a human audience promote distorted notions of what writing is. They also encourage poor teaching and little learning."

When discussing high-stakes summative assessment, the position statement specifically states that such assessments "should consist of multiple writing tasks and should allow sufficient time for a student to engage in all stages of the writing process." At least by implication, this position statement not only encourages assessment at least to make room for a full writing process that includes invention, research, review, and revision, but also might be read as justifying assessment of the skills and strategies that support all stages of the writing process, not just the process of creating a first draft.

The section in NCTE and CCCC's joint policy statement that focuses on assessment in the classroom recommends offering opportunities for feedback before grading and considering texts "from initial to final drafts" but does not comment on scoring any of the intermediate phases/artifacts. However, in less formal position statements addressing the writing process, the

NCTE urges teachers to engage students in writing processes that offer freedom to develop the student's own ideas fully, using strategies that may vary by mode of writing and by the student himself/herself (NCTE, 2014). This statement expresses a strong preference for classroom-based forms of assessment that will collect evidence about students' revisions in response to feedback, typically in the form of portfolios of student work (NCTE, 2008).

Another major national, official pronouncement about the writing process that would provide guidance for assessment is the Common Core State Standards for Writing (http://www.corestandards.org/ELA-Literacy/W/), to the extent that states continue to rely on these goals. However, very similar positions on the writing process can be found in various state standards documents, such as the ones published by the New York State Education Department (2017).

Under the category Production and Distribution (cited here from Grade 8), the Common Core State Standards specifically includes the writing process as a standard to be assessed: "With some guidance and support from peers and adults, develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach, focusing on how well purpose and audience have been addressed. (Editing for conventions should demonstrate command of Language standards . . .)" (Common Core State Standards Initiative, 2018a, para. 1).

Arguably, another Common Core State Standard, Research to Build and Present Knowledge, also contains requirements relevant to the writing process: "Gather relevant information from multiple print and digital sources, using search terms effectively; assess the credibility and accuracy of each source; and quote or paraphrase the data and conclusions of others while avoiding plagiarism and following a standard format for citation" (Common Core State Standards Initiative, 2018b, para. 1).

What distinguishes both of these standards from more traditional approaches to writing assessment, such as the National Assessment of Educational Progress's (NAEP) 2017 writing framework (National Assessment Governing Board, 2016), is that some evidence about the process preceding a finished written product would need to be obtained in order to assess how well a student met the goals. The ultimate product could suggest but not fully document mastery of these skills. NAEP's framework for its writing assessment does not focus on aspects of the writing process, choosing instead to emphasize the communicative purpose, audience, and mode of composition, in terms of using computer skills for creating texts. Thus, given the salience

writing processes have been given in recent position statements and standards documents, it becomes important to examine the extent to which evidence about the writing process has (or has not) been incorporated into mainstream writing assessment practice.

How the Writing Process Is Assessed in Mainstream K–12 Tests

First, let us consider the mainstream tests that are used in multiple states. As shown in Appendix A, quite a few of these tests claim to measure writing skills and even some aspects of the writing process, primarily skills in editing and revision.

Much of the measurement is indirect, via SR items that may increasingly rely on computer capabilities for elaborate variations on the original multiple-choice structures. The ACT, ACT Aspire, PreACT, *PSAT/NMSQT*®, *SAT*®, and Smarter Balanced Assessment Consortium (SBAC) assessments all include editing, revision, and/or text-analysis questions. However, these tests take a range of approaches. At one extreme, the ACT tests base their editing/revision/text-analysis items on texts that are obviously by or adapted from professional writers. At the other extreme, the SBAC test tries to situate the test taker in the midst of the student writing process and bases its items on texts ostensibly written by a student so that the test taker can envision doing this kind of task as part of a peer review or as part of editing and revising his/her own work.

Turning to direct measurement of writing in multistate mainstream tests, one finds some attention to the writing process in the CR task directions. In the ACT Writing section, prompts include a few prewriting questions for consideration, the instructions urge students to consider prewriting strategies, and the test booklet has space for planning. On the other hand, the prompts, directions, and rubrics for the SAT essay provide direction about how the writer is supposed to read and analyze the source material but provide little guidance about other aspects of the writing process. The SBAC's essay directions recommend using all the phases of the writing process (planning, writing, revising, editing) but only in a perfunctory manner. The NAEP writing assessment, which provides space online or on paper for notes and plans, also includes a separate instructional brochure about the writing process and, in its emphasis on using word processing or other computer tools, devotes attention to digital aspects of producing writing.

In contrast to the other multistate mainstream tests, the SBAC has a kind of drafting task that presents a faux student text and asks the test taker to write an introduction, continuation, or conclusion in a short CR. Again, the idea seems to be to simulate a stage of the writing process,

so in this sense, one could say that the test measures an intermediate product or artifact of the writing process.

Otherwise, all the mainstream CR tests listed in Appendix A score only the final essay product, either analytically or holistically: ACT Writing, ACT Aspire, ACT QualityCore English, *AP*® English Language and Composition, exams in the International Baccalaureate program, NAEP, PARCC, SAT Essay, and SBAC. However, most of these tests require the writer to read and respond to source texts as part of the writing task, and the quality of students' analysis of source materials is a critical contributor to their writing score.

As mentioned above, however, there is another perspective on the writing process to which the Common Core State Standards call attention, and the tests based on those standards directly reflect it; namely, the fact that when the writing product is based on source materials, research activities (and not just text analysis activities) are part of the writing process. The two tests most clearly based on those standards reflect this view.

PARCC features three types of combined tasks (literacy, research, and narrative) in which students first analyze and work with source materials in various ways—via SR items that involve reading and information-gathering skills—and then write an essay based on the sources. Each extended SBAC CR writing/performance task includes three preliminary exercises (SRs and short CRs) focused on understanding or analyzing the given sources for information that is potentially relevant to the essay topic. In both cases, it is not entirely clear whether the tasks that precede the essays measure reading and research skills or parts of the writing process. This may depend, in part, on whether or not the test taker actually uses these exercises to help compose his or her essay.

One other interesting example of assessing the research/writing process occurs in the research course for the AP Capstone program, a sequence of advanced placement classes designed to prepare students to undertake college-level research and argument writing tasks. Seventy-five percent of the final course score is based on the completed research paper, but one quarter is based on the oral defense, which includes explaining the process the student followed to produce that paper.

Many states do not rely on these multistate assessments but instead have their own, although the influence of the multistate assessments is often evident. Sometimes, states have branded as their own tests supplied by national vendors. To what extent do these tests pay

attention to the writing process? (It is worth noting that almost every state, with the exception of Minnesota, Iowa, and perhaps Kansas, includes direct writing assessment as part of the state accountability system for ESSA, though not necessarily at every grade level.)

In general, the answer is, "Not in any significantly different way." For details, see Appendix B. Overall, some tests include SR editing/revision items, sometimes using faux student texts as stimuli. Some tests include checklists or directions reminding test takers about the writing process. A few of these checklists are detailed and encourage students to undertake the various phases of the writing process. Some tests provide space or extra paper for planning purposes. Some tests include preliminary SR (and occasionally short CR) tasks working with sources prior to writing an extended CR about those sources. All the short or extended writing CRs are scored as final products. There appears to be an increasing trend toward designing CR tasks that are based on source materials, as with SBAC and PARCC, but not all states are taking this approach.

One interesting variation in terms of the writing process was Maine's former paper-based essay test that ran more than 1 hour. The tasks were based on short literary or informational passages, without any preliminary or prewriting exercises. The directions emphasize the desired qualities of the product rather than the writing process, and only the final product is scored. However, the test booklet is structured so that the student is supposed to write a draft, then apply a similar "writer's checklist" to see if his or her essay has fulfilled these criteria and revise accordingly. A similar approach is taken in the online version of the Maine writing assessment, which provides students with source materials they can cite, provides a writing checklist, and encourages students to revise their work before they submit their essay. (See Measured Progress, 2018.)

Examples of Mainstream K–12 Portfolio Assessment

At present, there appear to be no states using portfolios as their primary way to assess writing for the purposes of ESSA accountability. However, at the local level, some schools and districts are making use of this approach instead of using timed tests. As mentioned above, the ESSA permits some latitude and experimentation in types of assessment, so perhaps portfolio assessment could become more common at this level.

Examples of using portfolios for assessing writing skills of mainstream/general education students include several for which it was difficult to locate publicly available rubrics that defined

standards for overall portfolio assessment. The new PACE program in New Hampshire involves locally developed and scored performance assessment stretching over a period of time (in essence, projects), but no specific information about writing assessment in this system is available. Some school districts in New Jersey have implemented writing portfolios that require inclusion of drafts, teacher feedback, and student reflections—even comments from parents or guardians—but the overall rubrics were not posted. In cooperation with the Quality Performance Assessment program, Rhode Island plans to have schools or districts establish "diploma assessments" that could include student portfolios, but most of this organization's resources for designing and scoring such assessments are in a book that must be purchased, although a student peer editing checklist is publicly available.

Some programs do provide rubrics for assessing the completed writing portfolios. The Kentucky Writing Program, conducted at the school level, has a template (which can be adapted) for analyzing the portfolios, but it is very general and mentions overall strengths and weaknesses rather than specific components of the writing process.

One of the most active portfolio projects at the state level is the Texas Pilot Writing Program, a pilot program designed to assess use of portfolios as an alternative to the existing Texas STAAR writing assessment. As per the 2015 Texas legislation establishing this program, in addition to collecting and scoring timed writing samples, evaluators will also assess "the student's ability to follow the writing process from rough draft to final product" by applying rubrics to artifacts of that process included in the portfolios. As a whole, the portfolios will include timed writing samples from the start and end of the school year and three "process samples" in different modes from throughout the school year. Process samples would include plans, drafts, feedback, and so on in addition to the final-draft versions (Texas Education Agency, 2016).

According to the portfolio rubrics, both the timed samples and the process samples are scored for the categories of "expressing ideas; organization and structure; and use of language and conventions." In addition, the process samples sets are also scored for "planning; drafting; revising; and editing, publishing, and attention to feedback" (see *Portfolio Rubric Scoring Training—Draft* video, Texas Education Agency, 2017).

At present, usage of writing portfolios seems to be concentrated in higher education, often for purposes of program assessment (Pachler, Daly, Mor, & Mellar, 2010; Wardle &

Roozen, 2012; White, Elliot, & Peckham, 2015). College-level portfolio assessments often include self-reflection documents written by students, which are designed to probe students' metacognitive understanding of the writing process (Allan & Driscoll, 2014; Scott, 2005; White, 2005).

How the Writing Process Is Assessed for K–12 English Language Learners

As is the case with the mainstream writing assessments, those intended for measuring proficiency in a second language include some that are used in multiple states and some that are specific to an individual state. Given the purpose of these assessments, which is to ascertain mastery of a second language with writing functioning as one modality alongside speaking, listening, and reading, one would expect to find less focus on the traditional phases of the writing process. However, the multistate English language learning (ELL) assessments listed in Appendix A (the English Language Development Assessment [ELDA], the English Language Proficiency Assessment for the 21st Century [ELPA21], the LAS Links, and the WIDA ACCESS for ELLs suite [which is the most widely used]) do suggest some echoes of mainstream writing assessments. Both the ELDA and the ELPA21 include short and extended CRs; in contrast, the LAS Links items tend to focus on sentence-level writing skills and apparently include only short CRs. In addition to SR editing exercises intended to simulate peer review, the ELDA also has SR items on planning and organization in which the student fills in an outline or graphic organizer. ACCESS for ELLs 2.0 writing tasks include both prewriting questions designed to help with planning and a writer's checklist. Based on the publicly available information about these tests, they all score only the final written products, not the student's own intermediate planning, drafting, or revisions.

States with their own ELL writing tests are Arizona, California, New York, Texas, and possibly Kansas (not enough information to tell). The AZELLA (Arizona), ELPAC (California), and NYSELAT (New York; shorter test version is the NYSITELL) all offer CR writing tasks, some of which are based on pictorial stimuli and all of which are scored on the basis of the final products. In terms of attention to the writing process, the AZELLA CR writing tasks from Stage II upward include a writer's checklist, and the NYSESLAT tests provide a space for planning the extended CRs.

In contrast, the Texas English Language Proficiencey Assesssment System (TELPAS) takes a portfolio approach. The measure consists of assembling at least five writing samples per

student (classroom assignments, with specified guidelines for subject matter) and scoring these collections holistically for proficiency level. Assessment of the portfolio throughout the year is also intended to help inform instruction (Texas Education Agency, 2011).

The Writing Process(es) in K–12 Alternate Assessments

Alternate writing assessments for students who have significant cognitive difficulties represent a wide range of approaches. There are only two multistate tests, the Multi-State Alternate Assessment (MSAA) and the Dynamic Learning Maps (DLM), or three counting the WIDA Alternate ACCESS for ELLs. Many states have their own programs of modified assessments with scores that have different meanings (as opposed to mainstream assessments with accommodations, in which scores have the same meaning). Moreover, in a figurative sense, these assessments vary widely in approach and level.

States' differing resources may play a role, but this diversity may also arise from the particular challenges of designing ways to evaluate writing skills in this population (for which each student has an individual education plan) or indeed to define those skills in the first place. In this context, even communication that is not in the form of text is sometimes classified as writing. And, as mentioned above, what constitutes "the writing process" may be less about the concepts of planning, organizing, drafting, and revising than about precursor and basic skills. From one perspective, it may even be the amount of support and prompting that a student needs in order to respond to a writing task.

However, alternate assessment usually relies on mainstream assessment as a point of reference. The originator of the MSAA was the National Center and State Collaborative (NCSC), whose philosophy is summed up as "the same curriculum for all students" but "less complex performance expectation[s]" (Browder et al., 2015, p. 1). To that end, standards for students with significant cognitive disabilities may involve *core content connectors* to the mainstream Common Core State Standards or other state standards: "The language of the content standard is in almost all cases retained to maintain a close grade-level connection. In some cases, complex content standards are broken into smaller segments to help pinpoint targets for instruction." (Browder et al., 2015, p. 2). Among other concepts useful for creating assessments is *essential understandings*, which "define entry skills based on a grade-specific Core Content Connector" (Browder et al., 2015, p. 5). This model leads to an assessment design consisting primarily of

standard SR and CR writing tasks, with little to no focus on writing processes (Measured Progress, 2016).

DLM instead relies on a research-based *learning map model*. Here the essential elements are also connected to mainstream expectations or standards but are tailored to the particular population. The targets of learning and assessment are further dissected into *linkage levels* for precursor, successor, and other levels of skills related to those essential elements (University of Kansas Center for Educational Evaluation and Testing [UKCEET], 2017). DLM's presentation on what constitutes *emergent writing*—skills and concepts that one takes for granted, such as using a writing tool—and an example may be of interest (Dynamic Learning Maps, n.d.), though as this example illustrates, the focus is on acquiring precursor skills that enable students to draft texts on a variety of topics. Although the DLM essential elements include a reference to the writing process (UKCEET, 2013), DLM design also appears to focus on relatively traditional types of questions, adapted for alternative assessment purposes.

All three of the multistate alternate assessments—the MSAA, WIDA Alternate ACCESS for ELLs, and DLM—are tests, not portfolio assessments. The brand new MSAA does have CR writing tasks, but they were only in field-test mode and not operational from 2015 to 2016; at present, no sample writing items or writing test blueprints are available. Alternate ACCESS for ELLs includes CRs of a paragraph at most, so the traditional writing process is not assessed, although recognizing very basic elements of writing is. DLM alternate assessments provide descriptive statements from which teachers select while observing students in the process of deploying basic skills to produce and communicate about writing (choosing topics and information, etc.). Students who are not able to write in the conventional way may use their customary modes of communication instead, such as speech, sign language, or objects.

Many of the state-specific alternate assessments also come in the form of tests, some of which rely solely on SR tasks, but typically the teacher records observations about how the student chooses an answer, including the extent to which any prompting is needed. Examples of such tests are Louisiana's LAA-1, with items that involve identifying the appropriate words or phrases to fill in blanks in a given text; Nebraska's NeSA ELA Alternate Assessments or Texas's STAAR Alternate 2 writing assessment, with recognition items that at most call for understanding some aspect of a text or making minor edits and revisions editing/revisions

decision; and Oregon's Extended Assessment, with items about identifying elements of text, choosing correct words, or taking dictation.

New Mexico's NMAPA has SR items that relate more to the traditional writing process: A series of tasks takes the student through the steps of selecting text to form a short composition, such as an advertisement. In a similar manner, Georgia's GAA portfolio assessment asks students to choose premade sentence strips (and sometimes images) to produce narratives or other genres of writing. Hawaii's HSA-Alt writing items include engagement items in which the teacher observes the student's level of involvement in the activity, and some of the higher-level items cover editing skills, such as choosing a sentence that the author of a passage should omit or selecting a word that is preferable to one that the author used.

Other states offer alternate assessments with a wider range of levels, so that there are CR tasks as well as SR items. Although California's CAA mostly involves recognizing and selecting elements of the writing process, such as supporting details or appropriate organization of ideas, it also includes short CRs. Nevada's NAA permits students to "write" paragraphs by different means, but the paragraphs are expected to increase in length as the student matures. One might say that this test emphasizes the writing process in a different way: All administrations must be videotaped according to prescribed protocols.

As the task directions for Washington's WA-AIM occasionally mention, students may not necessarily always do the physical writing themselves. However, writing tasks include not only short CRs (at lower grades, a sentence in length, including writing a topic sentence), but also anything up to and including a short research report based on given sources. By fifth grade, there is a particular emphasis on research skills, such as finding certain information in sources. The tasks do help to deconstruct the writing process into more manageable increments, though the coverage of skills may be limited within each test.

Some tasks offered in Florida's FSAA are clearly relevant to the writing process in the conventional meaning of the term. The teacher first takes the student through the steps of making a simple outline for a text-based essay; next, in transferring the material to a blank page, asks the student whether or not he or she wishes to make changes to each section; and last, helps the student make any desired edits or revisions.

A few states take the portfolio approach to assessing writing skills of students with significant cognitive disabilities. Kentucky's Alternate K-PREP appears to be a portfolio of work

samples, including writing, that the teacher collects and evaluates according to a review checklist. One standard specifies mastering, with guidance and support, the phases of the writing process—not much different from the analogous Common Core State Standard. The MCAS-Alt that Massachusetts uses is a scored portfolio of work samples, including writing-related activities and actual writing; at the highest level, students may be writing multiparagraph essays.

Finally, Virginia offers two kinds of portfolio assessments for students who are unable to take the mainstream Standards of Learning (SOL) tests. The Virginia Substitute Evaluation Program (VSEP) is intended for students with disabilities who are able to meet the mainstream state standards but, even with accommodations, are unable to take the regular tests. The Virginia Alternate Assessment Program (VAAP) is based on modified or aligned standards and is intended for students with significant cognitive disabilities, so that scores do not have the same meaning as in the VSEP.

Both the VSEP and the VAAP use assessment of writing skills, including mastering elements of the writing process (planning, revising, editing), but the nature of the evidence is individualized: Collections of evidence may include work samples, quizzes, anecdotal observations, interviews, audio, video, and so on. In the VAA, evidence for mastering elements of writing may range from SR exercises at Level I (demonstrated with significant support and modification) to writing samples of a paragraph or more at Level III (fully demonstrated). However, in both programs, evidence must be obtained under testing conditions, and scoring is conducted by an outside contractor.

Using Computer Software to Support or Assess the Writing Process

A variety of software methods have been developed for assessing writing and supporting writing instruction. One approach can be found in automated essay scoring systems such as Project Essay Grade (Page, 1994, 2003), e-rater (Attali & Burstein, 2006), or the Intelligent Essay Assessor (Foltz, Laham, & Landauer, 1999; Foltz, Streeter, Lochbaum, & Landauer, 2013). Automated essay scoring systems have been used to create various commercial programs to support classroom writing practices, such as the *Criterion*® online writing evaluation service (Burstein, Chodorow, & Leacock, 2004), Turnitin (Buckley & Cowap, 2013; Heckler, Rice, & Hobson-Bryan, 2013), or WriteToLearn (Landauer, Lochbaum, & Dooley, 2009), and also freely available research systems, such as Writing Pal (McNamara et al., 2012; Roscoe & McNamara, 2013) and Writing Mentor (https://mentormywriting.org).

These systems generally offer feedback that can help students correct errors in grammar, usage, mechanics, and spelling, though these functions are also available in word processing programs like Microsoft Word and in stand-alone web applications like Grammarly (https://www.grammarly.com). In addition, because they support multiple draft writing (with scores and feedback) and teacher or peer review, they provide some support for assessment of the writing process (most often by tracking the number of drafts a student attempts and recording the scores and feedback provided for each successive draft). There is some validity evidence suggesting that this kind of automated feedback can provide an effective support to students as they develop their writing skills (Stevenson & Phakiti, 2014).

Some of these systems, such as Writing Pal, include game-like instruction in strategies that cover multiple stages of the writing process; others, such as Writing Mentor, provide feedback on specific features of writing that go beyond error correction, including feedback on use of sources, deployment of language to support argumentation, development of topics, and textual coherence. However, none of these systems is focused on providing reliable information about students' mastery of the writing process. They are primarily designed as writing tools that teachers can use to support classroom instruction. Although less well developed, there is also the potential to use keystroke logging software to measure the time course of writing and identify the ways in which writers make use of their time during the writing process (Leijten & Van Waes, 2013).

There is also software that is designed to support students through the writing process, with less of an emphasis on automated assessment or feedback. For example, Merit Software offers the Punch series of products and Time4Learning offers the classically named Odyssey Writer, both of which are structured to follow the classic stages of the writing process (prewriting, planning, drafting, editing/revision) and both of which track and save a student's work as he or she progresses through the process. At a higher level, programs such as Scrivener are also intended to help writers through the stages of researching and composing academic or other professional writing.

Another type of software supports a critical aspect of the writing process: teacher and peer review. Perhaps one of the most developed systems of this type is SWORD, now commercially available as Peerceptive (Cho & MacArthur, 2010, 2011; Cho & Schunn, 2007; Cho, Schunn, & Wilson, 2006; also see https://www.peerceptiv.com/). The SWORD system

provides automated methods for calibrating teacher and peer assessments and feedback against benchmark responses and their perceived helpfulness, as determined by student ratings. Similarly, My Reviewer is a software system that not only facilitates teacher or peer reviews of drafts but also provides resources for improving texts (Moxley, 2013; Moxley & Eubanks, 2016). Moxley, Eubanks, and others, such as Frey and Fisher (2013), suggest using data from such feedback to help target individual and class instruction in writing. This kind of system, which incorporates calibrated peer review (Russell, 2004; Russell, Van Horne, Ward, Bettis, & Gikonyo, 2017), is one of the few methods currently in operational use that supports assessment of writers' ability to review and provide feedback to other writers, and it has become a critical support for effective assessment of student writing in Massive Open Online Courses (MOOCs; Balfour, 2013).

Other ways in which software might be used to assess the writing process involve the creation of algorithms and models. For example, Leijen and Leontjeva (2012) experimented with different methods to find out what kinds of peer review comments were most likely to be implemented by the recipients. Perhaps most intriguing, Wininger (2014) applied software tools originally developed for analyzing genomic data to measure changes in successive versions or drafts of a written text. Wininger considers his approach more useful than the Microsoft document comparison tool because it reveals more about the changes in structure and content over the course of revisions and changes. Among other possibilities, he suggests that it could be used for detecting plagiarism from other sources, undesirable repetition within the writer's own work, or individual contributions to a collaborative project. Although assessment of the writing process for instruction or accountability was not Wininger's original purpose, perhaps such genomic-data-analysis tools might be deployed to evaluate a student's progress in revising a particular piece of writing.

Academic Research on Assessing the Writing Process

A 2016 survey of English teachers about their attitudes toward state assessments based on the Common Core State Standards for writing revealed that many teachers felt these tests "fail to address important aspects of writing development, [and] do not accommodate the needs of students with diverse abilities" (Troia & Graham, 2016, abstract). To the extent that writing development might include mastering the traditional activities involved in the writing process, then teachers might be interested in assessing these intermediate phases.

In fact, this interest is not new. For example, Rotta and Huser (1995) presented detailed ideas about approaches to evaluating intermediate products in the writing process, such as

- applying checklists to drafts and accumulate points for meeting the criteria on these lists,

- designating "focus correction areas" to encourage concentration on key areas that need improvement,

- highlighting but not explaining errors (so that the student has to understand and decide how to fix the error),

- limiting the marking of errors so that students can infer subsequent ones of the same kinds,

- color-coding corrections by type,

- applying rubrics at intermediate stages, and

- including intermediate work products in a portfolio.

Along the way, these authors suggested that some of these methods could count toward the final grade assigned.

Such evaluation seemed potentially useful for ELLs as well. Ferris (2003, pp. 130, 174) suggested that teachers could grade drafts separately from the final product and assess the effort that ELL students have put into incorporating the teachers' comments and actually changing the original texts. The students could also be assessed for their degree of thoughtfulness about responding to peer feedback, whether they adopted suggestions or did not and explained why they did not do so.

Gearhart and Wolf (1997) looked at the question from another perspective: To what extent do certain writing portfolios offer evidence about the students' writing processes and how can such evidence be considered in scoring? (See pp. 276–277 for detailed descriptions of the kinds of artifacts that the authors identified as possible sources of evidence about processes.) The portfolios that they examined "were more likely to contain documentation of editing than of planning or of content revisions" (p. 292), but they called for developing a more comprehensive and shared understanding of the kinds of artifacts that might best demonstrate students' progress in the traditional phases of the writing process.

In related research, Koutsoftas (2016) scored outlines and drafts of documents in process and found that these artifacts also tended to predict the writing quality of the final versions. Scrutiny of the kinds and quality of revisions that students made from first to final draft on a state writing test revealed that additions, as opposed to substitutions, had the greatest effect in improving the piece of writing (Crawford, Lloyd, & Knoth, 2008).

Because giving and implementing feedback are considered essential in the writing process as taught in the classroom, many researchers have focused on this aspect. Overviews can be found in Chang (2016), Cho and MacArthur (2010), Cho and Schunn (2010), Nelson and Schunn (2009), and Patchan and Schunn (2016).

Some paint a positive picture. For example, Berne and McMahon (2015) recommended applying rubrics during the prewriting/planning stage in order to help students develop topics to which they are committed and to take into account the intended audiences for their compositions; that is, to assess whether or not the student has a purpose in writing and can articulate that purpose. One investigation traced teachers' use of a set of rubrics to evaluate drafts as well as the final products, and it found that numerical improvements in analytical scores for various traits seemed to prove motivating for the students (Andrade, Buff, Terry, Erano, & Paolino, 2009). Focusing on the process even changed some teachers' practices: Frey and Fisher (2013) described their evolution from providing feedback on finished documents to providing feedback on drafts and subsequent development of an "error analysis tool" to help target areas for further instruction. And as for what makes students implement comments made by peer reviewers, Leijen and Leontjeva (2012) found that concrete recommendations for changes and multiple comments about the same topic seemed to be effective.

Such approaches are related to the concept of *dynamic assessment*, in which the educator identifies existing skills and deficits, provides appropriate intervention/mediation, then remeasures the student's performance to see what gains may have occurred (or not). Xiaoxiao and Yan (2010) conducted a study in which ELL students offered initial versions of topics, ideas, organization, and drafts; then, after discussion with the teacher, the students produced second iterations of these intermediate steps. The emphasis here is more on instruction than on assessment per se, but the authors' tentative conclusion is that this kind of approach can improve both the quality of students' writing and the confidence that students have about their writing skills.

In contrast to the above positive findings, other studies show mixed or even negative ones about how helpful feedback or other assessment during the writing process may be. For example, Rachel Ruegg (2015, 2016) has conducted two studies on this topic. The most recent compared students who were graded on their incorporation of teacher feedback into revisions, as well as on the final written product, with students who were graded on the final product alone. Grading students on the feedback part of the process did not seem to enhance the quality of the final product; in fact, Ruegg (2016) found "that the group assessed on final product alone improved significantly more than the group assessed on process in terms of essay content" (abstract). This result was in line with her 2015 study, in which grading students on either their use of teacher feedback for revising drafts or on their own feedback to peers' drafts did not seem (to the students) more useful than just grading the final writing products. Acknowledging that small sample size may have been a factor, Ruegg (2015) commented that because scoring these intermediate products takes valuable time for educators, the burden of proof is to show that it actually helps students improve their writing.

Other studies in this area that found negative or mixed results included both human and automated feedback. A comparison of peer reviews to instructor reviews, both delivered via the My Reviewer software, suggested that the former had ambiguous efficacy in helping writers to revise their drafts (Moxley & Eubanks, 2016). Although it did not involve students at the K–12 level, a 2012 study by Stellmack, Keenan, Sandidge, Sippl, and Konheim-Kalkstein (2012) that investigated the effects of feedback on subsequent drafts may also be relevant. They found that graduate student lab instructors were more likely to raise scores on subsequent drafts than were blind graders, and that the study's "results suggest that high scores obtained through the review–revise–resubmit procedure do not reflect good writing in an objective sense, but rather an ability to satisfy a particular reviewer" (abstract). Examining students' use of automated essay feedback on drafts of compositions, Moore and MacArthur (2016) found that scoring the drafts did motivate students to make revisions, but the students had trouble understanding and implementing some of the feedback.

Two other studies related to assessing intermediate phases in the writing process provide little direction. One concerned only self-assessment and was too small to be generalizable, but the outcome was that a group of ELL students who evaluated their own intermediate products in the writing process produced texts that were longer but not as high in quality as the texts of

students who evaluated their own final products only (El-Koumy, 2004). In a study of graduate students who were also writing in a second language, Khuder and Harwood (2015) compared both processes and products in timed vs. untimed situations, with access to online resources for the latter condition. Although the two conditions resulted in different allocations of time for the various phases of the writing process and different scores for the resulting products (higher scores in the untimed condition), there was no significant correlation between how writers allocated time for the phases of the writing process and the quality of the finished product. (See the discussion on pages 266–267 about the mixed results of spending more time on particular phases of the writing process. For example, emphasizing prewriting and planning was more helpful in the untimed situation than in the timed situation.)

Although concerned with instruction in rather than analysis of the writing process, one other study seems pertinent. A meta-analysis of 29 studies suggested that the process approach is somewhat more helpful to general-education students than to those with learning problems, for whom it did not provide motivation or improve their compositions. The authors do not recommend abandoning the process approach but rather exploring new ways to make it more effective (Graham & Sandmel, 2011).

The research described above is potentially relevant to formal assessment of the writing process (as opposed to classroom instruction and evaluation), but because such assessment is so rare, research about it is accordingly scarce. Perhaps if states had adopted portfolio assessment as their means of satisfying NCLB/ESSA requirements in recent years, there would be more research on the subject. However, where little guidance is available, conversely, opportunities for investigation are more plentiful.

Discussion

Exploring literature and information related to assessing the writing process, as opposed to just the writing product, raises at least five main issues, in my view:

- defining the writing process,

- including or excluding research activities as part of the writing process,

- extrapolating results from indirect measurement of the writing process,

- comparing models of the writing process to writers' actual processes, and

- considering the possible effects of formally measuring the writing process.

Some of the assumptions made by assessments that fall under these headings may require further scrutiny.

Defining the Writing Process

As mentioned above, the conventional meaning of the writing process already includes such intermediate phases as prewriting, planning, outlining, drafting, obtaining feedback, revising, editing, proofing, and possibly also reflecting back on or evaluating one's own work. With the use of modified standards for students with significant cognitive disabilities, this meaning may expand to encompass precursor skills and even the student's observed behavior during the process (not to mention redefining writing as other activities, such as putting together premade sentences or even pictures). The definition seems to become more and more inclusive, and in doing so may suggest further ways to understand what writers are actually doing. Of course, that expansion also has implications for assessment.

It may be useful to think of an assessment of the writing process as focusing on skills that are not ordinarily assessed in traditional direct and indirect writing assessments. This would include such skills as being able to interpret writing prompts and other cues to formulate appropriate goals and writing plans, being able to apply rubrics and other quality standards accurately to their own or other students' writing, being able to provide effective feedback to other writers based upon that evaluation, and being able to understand and act upon feedback provided to them by others. Many of these skills are metacognitive in nature and far removed from the skills most immediately called upon while a writer is immediately focused on writing a draft. Time is one of the constraints of the writing process, and the time required to create a complete draft may compete with the time needed to gain information about these kinds of metacognitive skills.

Including or Excluding Research Activities as Part of the Writing Process

To the extent that the writing construct requires the use of sources, research skills can come to play a very large role in the writing process. With the advent of widely used "performance tasks" (for instance, in PARCC and SBAC assessment) we are beginning to see assessments with the following structure:

- first, offer source materials;

- next, present SR and sometimes short CR items that involve analyzing aspects of these sources; and

- finally, conclude with an extended CR task that requires students to make use of the sources in writing their responses.

In its fullest form, this kind of assessment may be what has recently been called a scenario-based writing assessment, in which the sequence of items is specifically intended to walk the writer through key aspects of the prewriting and planning process (Deane, Fowles, Baldwin, & Persky, 2011; Deane et al., 2015; Deane & Song, 2014; Song & Sparks, 2017; van Rijn, Graf, & Deane, 2014; Zhang, van Rijn, Deane, & Bennett, under review).

To the extent that research skills are included under the heading of the writing process, the result may be a rather broad construct. The research activities that a writer undertakes while producing such a CR (or a report or a paper) arguably rely on a distinct set of reading/research skills necessary to support specific forms of writing. We would argue that it is useful to distinguish general writing process skills (planning, reviewing, revising, etc.) from such research-specific skills as locating sources, evaluating sources, organizing sources, extracting and using the information most pertinent to the research question, and so on. Research skills, like argumentation skills, are associated with specific genres of writing and may be better treated as a separate construct, or key practice, within ELA (Deane et al., 2015; Deane & Song, 2015; Sparks & Deane, 2015).

Extrapolating Results From Indirect Measurement of the Writing Process

Of course, the issue of inferring actual productive writing skills from indirect measurement via SR items is a longstanding one. With increased attention to the different components of the writing process, this question remains important.

Academic research on the writing process has been focused on instruction rather than assessment. That creates a potential confound between the goals of instruction and assessment. It is not safe to assume that students have mastered all the prerequisite skills they need in order to manage the writing process effectively. Ideally, in an assessment of students' writing-process-related skills, we would like to know whether students can formulate good plans for generating content, whether they can accurately judge how well their own or other students' writing fits a rubric, whether they are capable of formulating appropriate feedback, or whether they are

capable of acting appropriately upon feedback when they get it. However, there is no guarantee that giving students more time to engage in such activities will have a positive effect on their performance, or will yield useful assessment information, if students struggle to perform these tasks even when they are separated from the complexities of the larger writing process. In short, it may not be safe to assume that students are able and ready to apply appropriate writing process strategies, even if those strategies are targeted by instruction, because there is considerable evidence to suggest that an overwhelming majority of K–12 students in the United States do not reach baseline standards for proficiency in writing (National Center for Educational Statistics, 2012),

It thus seems possible that an attempt to assess students' writing may need to start by assessing many of the component, supporting skills, particularly skills linked to planning writing projects and evaluating written texts in relation to standards for quality writing, rather than more obvious and direct approaches such as tracking scores on successive drafts.

The SAT Writing and Language section and the SBAC peer-review editing items (including short CRs) are just two examples of attempts to simulate actual peer review or even the writer's own phases of drafting, revising, and editing by using faux student texts instead of professional writers' texts. However, because the texts are provided, rather than being the student's own drafts, and because most of the tasks are structured to direct the student's attention to a particular aspect of the text, being able to answer the questions correctly (or in the case of short CRs, provide good answers) does not conclusively demonstrate that the student can be equally successful in applying these skills to his or her own work. Being ruthlessly objective about one's own creation is not only intellectually but also emotionally more difficult.

Thus, perhaps some investigation is needed to determine how well performance on these exercises translates into changing and improving one's own drafts. Being able to generate and to organize one's own ideas are even less susceptible to indirect measurement. And more broadly, does mastery of intermediate writing-process skills lead to a better written product?

Comparing Theoretical Models of the Writing Process to Writers' Actual Processes

Academic models of the writing process are based on extensive research, but it may be useful to incorporate ongoing reality checks before codifying phases of the process for assessment. Once again, note that the National Council of Teachers of English (2014) is not at all rigid in its conception of the writing process.

Some fascinating anecdotal evidence about the variety of ways in which successful writers compose their works can be seen in the article by Blount (2011). More systematically, Sampson, Ortlieb, and Leung (2016) conducted a survey of best-selling and award-winning authors to investigate these authors' actual writing processes. The survey revealed that initial plans might be minimal or evolve significantly, revision and editing play a key role in shaping manuscripts, even authors of fiction conducted outside research, and writers were split between those who solicited feedback during the process and those who vehemently did not. Applying the findings to classroom instruction, Sampson et al. (2016) advised: "Remember that the writing process is inherently idiosyncratic; teachers must help student writers find what works for them, by showcasing and modeling a range of options through a process-oriented writing pedagogy to avoid the pitfalls of a locked step-by-step approach" (p. 9).

Given these pieces of cautionary evidence, note that almost all scholarly accounts of the writing process emphasize its nature as a problem-solving process under metacognitive, strategic control (at least for expert writers) and describe it as a process that must respond to a variety of variables that can change what specific sequence of steps will be most effective for a particular task—though novice writers may be much less flexible and thus more liable to perform poorly on complex writing tasks (Becker, 2006; Bereiter & Scardamalia, 1987; Flower & Hayes, 1980c; Kellogg & Whiteford, 1999). The implication is that writing process skills, as a construct, inhere partly in a wide range of skills that support planning, review, and revision and partly in the ability to coordinate these skills flexibly from one writing situation to the next.

Considering the Possible Effects of Formally Measuring the Writing Process

In contemplating the history, nature, and use of portfolio assessment, Lam (2017) raised questions about the effects of such assessment on the student in terms of shaping the student's actual writing process, not necessarily for the better. Like some other researchers, Lam is particularly concerned about the ramifications of scoring metacognition/reflection artifacts, but this point could apply to other phases of the writing process as well.

Might students conform to expectations about the writing process, real or perceived, in ways that could impede their growth as writers? Might it be preferable to use any scores on artifacts of the writing process for formative rather than summative purposes?

Assessing the writing process has the curious status of focusing on means in addition to ends. It may be analogous to focusing on the ways in which students solve math problems or

create artwork. Learning techniques and strategies is essential for reaching the desired result, but perhaps these techniques and strategies need to be kept in a larger perspective when considered as targets of accountability.

When viewed in this light, this kind of washback is less likely to be a problem for certain kinds of assessment activities, like demonstrating an ability to gauge the overall quality of a piece of writing or selecting appropriate goals in response to an item simulating the planning stage before responding to a writing prompt. These kinds of tasks are demonstrations of critical supporting skills, and if the response of teachers to these skills being assessed is to teach them rather more than they currently are, the results are likely to be positive. By contrast, directly scoring intermediate products of a student's actual writing process has considerable potential to distort the choices students make about their writing, especially in high-stakes situations.

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Appendix A. Writing Assessments Used in Multiple States/Agencies to Measure the Writing Process

This table shows tests apparently used in more than one state or agency (i.e., any other educational authority, such as territories, etc.) that claim to include some kind of measurement of writing skills.

Tests that claim to measure writing skills	How do these tests measure writing skills, and do they assess intermediate phases of the writing process?
ACT --ACT with Writing	--The ACT English section assesses editing/revision/analysis skills via selected-response items based on given texts by professional writers, as opposed to faux student texts. --ACT Writing prompts include a few prewriting questions for consideration; the instructions urge students to consider prewriting strategies; and the test booklet has space for planning. However, only the final written product is scored (analytically).
ACT Aspire	--The ACT Aspire assesses editing/revision skills via selected-response items based on given texts by professional writers, as opposed to faux student texts. --ACT Aspire summative assessments include direct writing measures. Lower-grade ACT Aspire prompts include a few prewriting questions to help students think about and plan essays. However, only the final written product is scored (analytically).
ACT QualityCore English Tests	--The ACT QualityCore English tests each include one essay response, presumably about a literary topic, that is scored analytically as a final product. Few details about these tests appear to be available to the public; possibly they are being phased out, according to a statement on the Alabama DOE site.
Not the ACT WorkKeys, which is mentioned here just for reference because it is used in many states	[No editing or writing tasks, either SR or CR, are in these tests; they deal with comprehension skills for reading and visual materials.]
AP Research Capstone --AP English Language and Composition	--Arguably, the Research Capstone Program is all about the process insofar as the student's research involves writing. There is no written exam, but 75% of the overall score covers the final research paper and 25% the oral defense, which includes explaining the process the student followed to produce that paper. --The Course Description for AP English Language and Composition mentions covering the writing process, but SR items on the exam do not seem to concern editing or revision skills. The free-response questions in the exam are based on texts, and although the directions remind students about the desired qualities of the responses, there is no acknowledgment of the writing process and only the final products are scored.
Dynamic Learning Maps Alternate Assessment (DLM)	--DLM alternate assessments provide descriptive statements from which teachers choose while observing students in the process of deploying basic skills to produce and communicate about writing (choosing topics and information, etc.). However, the list of Tested Essential Elements for ELA suggests that the scoring for performance levels reflects the final product. Students who are not able to write in the conventional way may use their customary modes of communication instead,

Tests that claim to measure writing skills	How do these tests measure writing skills, and do they assess intermediate phases of the writing process?
	such as speech, sign language, or objects. DLM's presentation on what constitutes "emerging writing"—concepts that one takes for granted—and an example may be of interest.
English Language Development Assessment (ELDA)	--The ELDA includes short and extended CRs; in addition to SR editing exercises intended to simulate peer review, it also has SR items on "planning and organization" in which the student fills in an outline or graphic organizer.
English Language Proficiency Assessment for the 21st Century (ELPA21)	--The ELPA21 includes short and extended CR writing tasks, with responses scored holistically; no indication that intermediate phases of the writing process are scored.
International Baccalaureate (IB)	--The Middle Years and Diploma Programs of the IB include scored essays and research papers on various subjects, but the sample tasks for the exams do not mention the writing process and only the finished essays or papers are scored. However, the available information about assessment is very limited.
LAS Links (for ELLs)	--The LAS Links appears to include some short CRs (a paragraph), but it is not clear whether or not there are any extended CRs. The vast majority of writing skills assessed are at the sentence level.
Multi-State Alternate Assessments (MSAA)	--The brand-new MSAA does have CR writing tasks, but they were only in field-test mode and not operational during 2015–2016. At present, no sample writing items or writing test blueprints are available.
National Assessment of Educational Progress (NAEP)	--The new writing measure emphasizes writing for particular purposes/audiences and using digital tools for writing; in that latter sense, one might say that there is an emphasis on process of a sort. Although the program hands out a brochure about the writing process and provides space online or on paper for notes and plans, the tasks involve creating an essay that is scored holistically as a final product.
Partnership for Assessment of Readiness for College and Careers (PARCC)	--PARCC does not seem to offer ELA items that attempt to simulate revising or editing texts written by a peer or by oneself. PARCC ELA does include three types of combined tasks (Literacy, Research, and Narrative) in which students first analyze and work with source materials in various ways, via SR items that involve reading and information-gathering skills. Then students are asked to write an essay based on the sources, but directions for the essay do not mention phases of the writing process and only the final product is scored (analytically).
PreACT	----Just as in the ACT, the PreACT English section assesses editing/revision/analysis skills via selected-response items based on given texts by professionals, not the students' own texts. There is no CR writing section.
PSAT/NMSQT	--The Writing and Language section of the PSAT/NMSQT includes only SR exercises that involve making minor edits or revisions to given texts (selections based on published works); no CRs or mention of other phases of the writing process.

Tests that claim to measure writing skills	How do these tests measure writing skills, and do they assess intermediate phases of the writing process?
SAT or SAT with Essay	--The Writing and Language section of the SAT includes only SR exercises that involve making minor edits or revisions to given texts (selections based on published works); no CRs or mention of other phases of the writing process. --For the text-based SAT Essay, prompts suggest a few points to consider while reading the source material, but the directions do not mention using the traditional phases of the writing process. Only the final product is scored (analytically).
Smarter Balanced Assessment Consortium (SBAC)	--The SBAC revising/editing exercises involve working with a given text (usually presented as a student's work) rather than the writer's own, and most are SR, though a few are short CR (add an introduction, continuation, or conclusion to another student's essay). --Each extended SBAC CR writing/performance task includes three preliminary exercises (short CRs and SRs) focused on understanding or analyzing the given sources for information that is potentially relevant to the essay topic; one could consider these exercises part of the writing process (though not initiated by the writer) or view them as essentially reading/research tasks. But only the final product is scored (analytically).
WIDA ACCESS for ELLs 2.0 --WIDA Alternate ACCESS for ELLs (Note: many states that use the mainstream ACCESS mention the using the alternate test as well, but not all do) --W-APT or its new replacement, the WIDA Screener (used in some states, but not always specified)	--ACCESS for ELLs 2.0 writing tasks include both prewriting questions to help with planning and a writer's checklist, but only the final product is scored. --Alternate ACCESS for ELLs includes CRs of a paragraph at most, so deploying the traditional writing process is not assessed, although recognizing very basic elements of writing is. --No information available on the W-APT or WIDA Screener writing tasks.

Note. Some of the testing systems using the state's own name are actually the same as or close variants of PARCC (e.g., Louisiana) or SBAC (e.g., Michigan).

Appendix B. Each State's Writing Assessments and Any State-Specific Measurement of the Writing Process

See Gewertz (2017) for lists of mainstream state assessments. The table below includes also ELL and alternate assessments as well as other education agencies that manage public education in territories, in the military, and in Native American lands.

Note that:

- ACT and SAT are included where the state pays for students to take one of these tests and in some cases requires students to do so.

- AP and NAEP are not included because these are ubiquitous across all states.

- Although the Diploma program is available in almost 1,000 schools across the country, IB is not included because the state websites do not always mention it.

- It is not clear which states/agencies that use WIDA ACCESS for ELLs 2.0 also use the WIDA Alternate ACCESS for ELLs and/or the W-APT or WIDA Screener placement tests; some state websites mention these additional measures and some do not. The chart indicates entities that specifically mention the alternate tests, but not the placement tests, as information about assessment of writing skills in the latter is not available.

Table B1. State Writing Assessments and State-Specific Writing Measurements

State/Agency	In which of its tests are writing skills intended to be assessed?	How do any tests that are specific to this state/agency measure writing skills, and do they assess intermediate phases of the writing process?
Alabama	--In ACT Aspire --In ACT with Writing --In WIDA ACCESS for ELLs 2.0 --In WIDA Alternate ACCESS for ELLs --Alabama State alternate assessment may include taking the ACT Aspire or collecting work samples; reading is required but writing has been optional until now, when it is being required in Grades 10 and 11	--No information on whether or how the alternate assessments would include evaluation of writing through work samples.
Alaska	--Presumably in the new Performance Evaluation for Alaska Schools (PEAKS) --In WIDA ACCESS for ELLs 2.0 --In WIDA Alternate ACCESS for ELLs --In Dynamic Learning Maps Alternate Assessment (DLM)	--The spring 2017 PEAKS does not include any CR tasks for writing, although perhaps it will in the future (only the current year's blueprint is available). SR ELA items cast the test taker in the role of a peer advising another student about various kinds of decisions to be made during the writing process.
Arizona	--In AzMERIT, which is being redesigned for 2019 --In Arizona English Language Learners Assessment (AZELLA) --In Multi-State Alternate Assessments (MSAA)	--The current AzMERIT sample writing tests include a checklist for writing responses but only the final product is scored (analytically). However, the sample tests are incomplete and the tests are being redesigned. Despite the state's repudiation of the Common Core State Standards, the language is very familiar: "Develop and strengthen writing as needed by planning, revising, editing, rewriting, or trying a new approach;" "Gather relevant information from multiple print and digital sources, assess the credibility and accuracy of each source, and integrate the information while avoiding plagiarism." --AZELLA CR writing tasks are mostly scored holistically, with only the final product assessed, although the tasks from Stage II upward include a writer's checklist. --MSAA assessments are administered in a step by step fashion that guides students through the writing process using stimulus materials intended to help them follow a full writing process, including topic selection, choosing characters/supporting details, drafting with a graphic organizer, revising, editing, and proofreading the final story or essay.

State/Agency	In which of its tests are writing skills intended to be assessed?	How do any tests that are specific to this state/agency measure writing skills, and do they assess intermediate phases of the writing process?
Arkansas	--In ACT Aspire --In optional ACT without Writing for 11th graders --In the English Language Proficiency Assessment for the 21st Century (ELPA21) --In Multi-State Alternate Assessments (MSAA), to be used in 2017–18 --In Dynamic Learning Maps Alternate Assessment (DLM), which may be used starting in 2018	N/A
California	--In the SBAC --In the new English Language Proficiency Assessments for California (ELPAC) --In the California Alternate Assessments (CAA), based on the NCSC Core Content Connectors (CCC) and Essential Understandings	--The SBAC assessment includes performance tasks where students are provided with multiple source texts to read. They are taken through a series of short constructed response and selected-response items that require them to read and think about the topic introduced in the reading. Then they complete an extended writing task. The directions suggest following a full writing process, including planning, writing, and revising, but only the final written product is scored. ---The ELPAC, developed by ETS, will contain short and extended CR writing tasks, but there does not appear to be any scoring of intermediate phases in the writing process. --The CAA uses the CCC and Essential Understandings for assessing cognitively disabled students by grade, with three different levels of understanding for each grade/CCC/EU. Evidence for demonstrating understanding about writing, especially at the lower levels, usually involves recognizing and selecting elements of the writing process, such as supporting details or appropriate organization of ideas. "Producing a permanent product" may in some cases involve writing text, but not necessarily; the only sample items available are short rather than extended CR .
Colorado	--In PARCC, used by the Colorado Measures of Academic Success (CMAS) --In the PSAT/NMSQT --In the SAT with optional Essay --In WIDA ACCESS for ELLs 2.0 --In Dynamic Learning Maps Alternate Assessment (DLM)	N/A

State/Agency	In which of its tests are writing skills intended to be assessed?	How do any tests that are specific to this state/agency measure writing skills, and do they assess intermediate phases of the writing process?
Connecticut	--In the SBAC --In the LAS Links (for ELLs) --Used to be measured in the ConnecticutAlternate Assessment but is not currently and unknown whether it will be in the future	N/A
Delaware	--In the SBAC --In the SAT with Essay --In WIDA ACCESS for ELLs 2.0 --In WIDA Alternate ACCESS for ELLs --Not in the Delaware Comprehensive Assessment System-Alt1, an alternate assessment that covers reading but not writing	N/A
District of Columbia	--In PARCC --In the PSAT/NMSQT --In the SAT with Essay --In WIDA ACCESS for ELLs 2.0 --In WIDA Alternate ACCESS for ELLs --In Multi-State Alternate Assessments (MSAA)	N/A
Florida	--In the Florida Standards Assessments (FSA) --In WIDA ACCESS for ELLs 2.0 --In WIDA Alternate ACCESS for ELLs --In the Florida Standards Alternate Assessments (FSAA) performance task --Not in the FSAA-Datafolio for students who "do not have a formal mode of communication"	--The FSA seems an "SBAC light," with similar kinds of standards and a smaller range of similar tasks. However, the FSA editing exercises are SR only. The directions for the very similar-looking text-based essay task do remind students about the writing process, but in contrast to SBAC, there are no tasks involving working with the sources prior to writing the essay. Only the final essay product is scored (analytically). -- The FSAA Writing tasks may be of particular interest from a process perspective. The teacher takes the student through the steps of making a simple outline for a text-based essay, then in transferring the material to a blank page asks the student whether or not he she wishes to make changes to each section. Last, the teacher helps the student make any desired edits or revisions.

State/Agency	In which of its tests are writing skills intended to be assessed?	How do any tests that are specific to this state/agency measure writing skills, and do they assess intermediate phases of the writing process?
Georgia	--In Georgia Milestones --In WIDA ACCESS for ELLs 2.0 --In WIDA Alternate ACCESS for ELLs --In Georgia Alternate Assessments (GAA)	--The Georgia Milestones ELA uses text-based sets of tasks that may include SRs and/or a short CR about the text prior to the final extended CR, which is scored either holistically (narrative) or analytically (other genres). A writer's checklist is provided, but it is about the qualities of the final product rather than the phases of the writing process. --In the GAA portfolio approach, students choose premade sentence strips (and sometimes images) to produce narratives or other genres of writing. The teacher writes observations of the process that the student deploys for making these choices, including the extent to which any prompting is needed.
Hawaii	--In the SBAC --In ACT with Writing --In the Hawaii State Alternative Assessment (HSA-Alt) --In WIDA ACCESS for ELLs 2.0	--The HSA-Alt writing items include "engagement items" in which the teacher observes the student's level of involvement in the activity, and otherwise SR items, either text or pictorial. Some of the higher-level items cover editing skills, such as choosing a sentence that the author of a passage should omit or selecting a word that is preferable to one that the author used.
Idaho	--In the SBAC (though called the "Idaho Standards Achievement Test" or ISAT) --In the 11th-grade SAT with Essay --In the Idaho Alternate Assessment for ELA/Literacy --In WIDA ACCESS for ELLs 2.0	--The Idaho Alternate Assessment in ELA/Literacy appears to use only SR items for measuring writing skills based on the Common Core Connectors; no specs or sample items available.
Illinois	--In PARCC --In the SAT with Essay --In WIDA ACCESS for ELLs 2.0 --In WIDA Alternate ACCESS for ELLs --In Dynamic Learning Maps Alternate Assessment (DLM)	N/A
Indiana	--In ISTEP+ 3–8 --In ISTEP+ 10 (replaces the End-of-Course Assessments) --In the PSAT/NMSQT --In WIDA ACCESS for ELLs 2.0 --In WIDA Alternate ACCESS for ELLs --In the Indiana Standards for Alternate Reporting (ISTAR)	--The iSTEP+ measures writing via essays based on given texts. There are no preliminary exercises based on the texts and the directions mention only desired content, not the writing process. Essays are scored for "grammar and usage" and for "writing" (i.e., all other qualities); only the final product is scored. --The sample ISTAR writing tasks all seem to be SRs based on given texts, generally more like reading exercises; the tests don't have any rubrics, so apparently CRs are not included.

State/Agency	In which of its tests are writing skills intended to be assessed?	How do any tests that are specific to this state/agency measure writing skills, and do they assess intermediate phases of the writing process?
Iowa	--In the Iowa Assessments (main and CR supplement), even though Iowa is listed as a member of the SBAC --In the Iowa Writing Assessment --In the English Language Proficiency Assessment for the 21st Century (ELPA21) --In Dynamic Learning Maps Alternate Assessment (DLM)	--The main Iowa Assessments seem to be only SR tasks, though these include editing items. There is a 30-minute CR supplemental writing assessment available, but essays are scored locally by teachers; no samples or rubrics available. (See below.) --The Iowa Writing Assessment does not seem to be mandatory and is scored locally. Offering four kinds of essay prompts in each grade level, it claims to "reflect the important stages of the writing process: prewriting, composing, and editing," but no rubrics or samples are available to show how or whether anything other than the final essay is scored.
Kansas	--Maybe in the Kansas Assessment Program (KAP), or maybe not --In Kansas English Language Proficiency Assessment (K-ELPA; other ELL assessments also permitted) --In Dynamic Learning Maps Alternate Assessment (DLM)	--Unclear, because the mainstream Kansas ELA assessment includes SR items only; no blueprints, description of content, or sample items are available to the public. --K-ELPA is described as including writing, but no test blueprints or sample items are available. It may actually be the ELPA21.
Kentucky	--In Kentucky Performance Rating for Educational Progress (K-PREP) --In the End-of-Course ACT QualityCore English 10 --In the Kentucky Writing Program --In Kentucky Online Testing (KYOTE) --In the ACT (apparently without Writing) --In WIDA ACCESS for ELLs 2.0 --In Alternate K-PREP	--The K-PREP includes essay tasks, some based on texts and others not. Test booklets provide a blank page for prewriting, outlines, or notes. Judging by the sample items, only the final product is scored (holistically). However, students are given an extensive "writer's reference sheet" that includes reminders about using the phases of the writing process (prewriting, drafting, reviewing) as well as fulfilling specific criteria for the assignment. --The Kentucky Writing Program is a portfolio approach conducted at the school level. The template (which can be adapted) for analyzing the portfolios is very general and mentions overall strengths and weaknesses rather than specific components of the writing process. --KYOTE Writing is a test apparently consisting of one essay; no further information available. --The Alternate K-PREP appears to be a portfolio of work samples, including writing, that the teacher collects and evaluates according to a review checklist. One standard specifies mastering the phases of the writing process (with guidance and support).

State/Agency	In which of its tests are writing skills intended to be assessed?	How do any tests that are specific to this state/agency measure writing skills, and do they assess intermediate phases of the writing process?
Louisiana	--In LEAP (Louisiana Educational Assessment Program), which seems identical to PARCC --In the End-of-Course English I, II, and III (high school) --In the ACT w/out Writing --In the English Language Development Assessment (ELDA) --In LEAP Alternate Assessment (LAA-1)	--The End-of Course English tests include text-based extended CRs to assess writing. The extensive directions describe the steps in the writing process that the student should follow. However, only the final draft is scored (analytically). --In the LAA-1, the writing items are SR only and involve identifying the appropriate words or phrases to fill in blanks in a given text.
Maine	--In the Maine Educational Assessments (MEA) --In the SAT, but not clear if the Essay section is included --In WIDA ACCESS for ELLs 2.0 --In WIDA Alternate ACCESS for ELLs --In Multi-State Alternate Assessments (MSAA)	--The MEA or eMPower (from Measured Progress) ELA measures include SR editing exercises. Maine itself provides the hour-plus essay tasks, which are based on short literary or informational passages. There are no preliminary or pre-writing exercises; and the directions emphasize the desired qualities of the product rather than the writing process. However, the test booklet is structured so that the student is supposed to write a draft, then apply a similar "writer's checklist" to see if his/her essay has fulfilled these criteria and revise accordingly. It is not clear whether or not this approach will continue, as the sample items currently available are said not to be representative of those in the new online administration.
Maryland	--In PARCC (including English 10, required for graduation) --In WIDA ACCESS for ELLs 2.0 --In Multi-State Alternate Assessments (MSAA)	N/A
Massachusetts	--In the "Next-Generation MA Comprehensive System (MAS)," now being phased in; it will be a computer-delivered blend of PARCC and new MA-proprietary items --In WIDA ACCESS for ELLs 2.0 --In WIDA Alternate ACCESS for ELLs --In MCAS Alternate Assessment (MCAS-Alt)	--No information on any writing measures that this state may be adding to PARCC tests. --The MCAS-Alt uses scored portfolios of work samples, including writing-related activities and actual writing; at the highest level, students may be writing multi-paragraph essays. The aspect of the rubric that touches on the writing process is not a traditional phase in this process but rather is called "independence" and indicates the extent to which the student required support and prompting in completing the activity or text.

State/Agency	In which of its tests are writing skills intended to be assessed?	How do any tests that are specific to this state/agency measure writing skills, and do they assess intermediate phases of the writing process?
Michigan	--In the Michigan Student Test of Educational Progress (MSTEP), which seems to be essentially the same as the SBAC, and Michigan is a member of the SBAC --In the PSAT/NMSQT --In the SAT with Essay (part of Michigan Merit Examination or MME) --In WIDA ACCESS for ELLs 2.0 --In WIDA Alternate ACCESS for ELLs --In MI-Access (alternate assessment)	--In the MI-Access, at the "functional independence" level, students with cognitive disabilities may participate in the mainstream assessment; at the "supported independence" and "participation" levels, the writing items mostly involve recognizing very basic elements of writing.
Minnesota	--Not in the Minnesota Comprehensive Assessments (MCA); despite the name, these tests include only reading, not writing --In the SAT or ACT (optional; state pays for one of either per student, but not clear if essay sections are included) --In WIDA ACCESS for ELLs 2.0 --In WIDA Alternate ACCESS for ELLs --Not in the Minnesota Test of Academic Skills (MTAS), the alternate assessment, which includes reading but not writing	N/A [This state is anomalous in its lack of writing assessment.]
Mississippi	--In the Mississippi Assessment Program (MAP) --In the ACT --In LAS Links (for ELLs) --Unknown for the Alternate Mississippi Assessment Program (Alt-MAP) under development; it will still use the DLM ELA standards, but no other information is available	--In the MAP ELA tests, the writing task is based on a given text. Students first answer a series of SR reading questions about the passage and then write an essay on the topic. No mention of the writing process, and the final product is scored analytically.
Missouri	--In the Missouri Assessment Program (MAP) --In the End-of-Course English I and II --In the ACT with Writing --In WIDA ACCESS for ELLs 2.0 --In WIDA Alternate ACCESS for ELLs --In the MAP-A, which uses Dynamic Learning Maps Alternate Assessment (DLM)	--The MAP grade-level ELA and End-of-Course English include writing measures, but no sample items are currently available apart from a couple of prompts. Directions for the extended CRs ask students to write responses "after you finish your prewriting activity" and to use the writer's checklist, which details the desired characteristics of the response. Only the final product is scored (analytically).

State/Agency	In which of its tests are writing skills intended to be assessed?	How do any tests that are specific to this state/agency measure writing skills, and do they assess intermediate phases of the writing process?
Montana	--In the SBAC (under the Montana Comprehensive Assessment System, or MontCAS) --In WIDA ACCESS for ELLs 2.0 --In WIDA Alternate Access for ELLs --In Multi-State Alternate Assessments (MSAA)	N/A
Nebraska	--In the Nebraska State Accountability (NeSA) --In the ACT with Writing --In the English Language Proficiency Assessment for the 21st Century (ELPA21) --In the NeSA Alternate Assessment	--The NeSA ELA "Independent Writing Items" are not CRs as the name might imply; instead, they are SR items involving giving various kinds of writing advice to the purported student authors of given texts, that is, they are peer-review tasks. --The NeSA ELA CR writing measure is called a "text-dependent analysis." After completing SR questions about a given text, the student writes an analysis of a particular aspect of that text, or, at the highest level, an essay that goes beyond, such as an argument for or against the Nebraska legislative structure described in the given passage. Students receive a "Writer's Checklist" and blank paper for pre-writing but may not have graphic organizers. The checklist suggests planning and revising as well as including the desired text characteristics. --Writing skills measured in the NeSA ELA Alternate Assessments are mainly of the recognition type. Even at the highest level, the sample items are SRs that call for either understanding an aspect of a given text or making a minor editing decision.
Nevada	--In the SBAC --In the End-of-Course "ELA II with a Focus on Writing" --In the ACT with Writing --In WIDA ACCESS for ELLs 2.0 --In the Nevada Alternate Assessment (NAA)	--The End-of-Course exams include "English Language Arts II with a Focus on Writing," and the essays are scored using SBAC mode-specific rubrics. A sample of the item types shows a given text followed by SR questions about the text, then an extended CR analyzing the text. The directions emphasize desired characteristics of the response but not the phases of the writing process. Probably much like SBAC for the other modes of writing as well. --According to the NAA test-administration manual, there are three levels of "alternate grade indicators" and the assessments consist of tasks (including writing tasks) rather than a collection of scored work samples. Students may write responses by different means, but the paragraphs are expected to increase in length as the student matures. No sample writing tasks are available, but in a sense there is an emphasis on process, since all administrations must be videotaped according to prescribed protocols.

State/Agency	In which of its tests are writing skills intended to be assessed?	How do any tests that are specific to this state/agency measure writing skills, and do they assess intermediate phases of the writing process?
New Hampshire	--In the SBAC --Maybe in the Performance Assessment for Competency Education (PACE), maybe not --In the SAT with Essay (Essay is optional) --In WIDA ACCESS for ELLs 2.0 --In WIDA Alternate ACCESS for ELLs --In Dynamic Learning Maps Alternate Assessment (DLM)	--The new PACE program involves locally developed and scored performance assessment stretching over a period of time (in essence, projects), but no specific information about writing assessment in this system is available. Would need to talk to ELA teachers who participate.
New Jersey	--In PARCC --In some individual school districts' ELA portfolio programs --In WIDA ACCESS for ELLs 2.0 --In WIDA Alternate ACCESS for ELLs --In Dynamic Learning Maps Alternate Assessment (DLM)	--Information on the individual school districts' portfolio programs is scanty, but a few Websites indicate such an approach. The guidelines for Plainfield's program require that students submit artifacts of the writing process ("rubrics, teacher feedback, and student reflection") along with the final versions of their papers. In Manchester Township, an interesting aspect of the portfolio program is its use of "family reflection," whereby the student not only records his/her own reflections but also obtains a comment about it from parent(s) or guardian.
New Mexico	--In PARCC --In End-of-Course English (tests designed by NM teachers) --In WIDA ACCESS for ELLs 2.0 --In the New Mexico Alternative Performance Assessment (NMAPA)	--The End-of Course English tests include one or more CRs, but no sample items or descriptions are available, although it appears that only the final product is scored. --Tasks in the NMAPA take students through the process of selecting text to form a short composition, such as an advertisement.
New York	--In ELA 3–8 State Tests --In the Regents ELA Examination --In the New York State Second Language Achievement Test (NYSESLAT) and New York State Identification Test for ELLs (NYSITELL) --In the New York State Alternate Assessment (NYSAA), which is the Dynamic Learning Maps Alternate Assessment (DLM)	--Based on Common Core standards, the state's ELA 3-8 tests feature extended CR writing tasks that are based on "authentic" source materials and involve analyzing the given text(s). These tasks may include preliminary short CR questions about the source materials, perhaps more likely in the lower grades than in the upper. Directions for the final long CR emphasize desired characteristics of the response but do not mention phases of the writing process. Although a page is provided for planning this response, only the final product is scored, using an overall number for each of four separately evaluated dimensions.

State/Agency	In which of its tests are writing skills intended to be assessed?	How do any tests that are specific to this state/agency measure writing skills, and do they assess intermediate phases of the writing process?
New York, continued		--The Regents ELA Exam includes such source-based extended writing tasks as creating an argument about an issue and analyzing a text. In both cases, the directions emphasize desired characteristics of the response but do not mention phases of the writing process. Although scrap paper is provided for planning and notes, only the final product is scored, using an overall number for each of four separately evaluated dimensions.
		--The NYSESLAT contains both short and long CR writing tasks. Both kinds of tasks provide an illustration (or chart) and related text as sources on which the responses are to be based. The short CRs are a paragraph in length; the extended ones are two or more paragraphs. The tests provide a space for planning the extended CRs, but plans are not scored; only the final product is scored, using a "holistic" rubric with five dimensions.
		--The NYSITELL is a shorter version of the NYSESLAT; it includes editing questions, dictation, and writing short responses based on a picture or a brief text.
North Carolina	(NC is listed as a member of the SBAC, but there is no evidence of this membership on the NC site) --Not in the End-of-Grade 3–8 assessments; SR reading items only --(Marginally) In the high school End-of-Course English II test --In the PreACT --In the ACT with Writing --In WIDA ACCESS for ELLs 2.0 --In WIDA Alternate ACCESS for ELLs --Not in the NCEXTEND1 alternate assessments; SR reading items only, except perhaps for a few about word choice	--The EOC English II test is primarily composed of SR items analyzing given passages, but it includes three (operational) short CRs, each of which is focused on some fairly narrow aspect of the passage. The brief tasks are as much measures of reading as of writing, and the writing process is not considered, other than with the provision of scrap paper for notes/plans.
North Dakota	--In the SBAC --In the ACT with Writing --In WIDA ACCESS for ELLs 2.0 --In WIDA Alternate ACCESS for ELLs --In Dynamic Learning Maps Alternate Assessment (DLM)	N/A

State/Agency	In which of its tests are writing skills intended to be assessed?	How do any tests that are specific to this state/agency measure writing skills, and do they assess intermediate phases of the writing process?
Ohio	--In Ohio's State ELA Tests --In the Ohio Graduation Tests (End-of-Course English I and II) --In the ACT without Writing or SAT without Essay --In the English Language Proficiency Assessment for the 21st Century (ELPA21), which Ohio calls the "Ohio English Language Proficiency Assessment (OELPA)" --In Ohio's Alternate Assessment for Students with Significant Cognitive Difficulties (AASCD)	The Ohio State Tests in ELA (3–18) and the Ohio Graduation Tests (English I and II) include writing tasks whose mode varies by grade level. A text or pair of texts is followed by SR reading items (and, in the lower grades, one or two short CRs), then an extended CR. Directions for the extended CR specify what elements and characteristics the response should include but do not address the phases of the writing process until the high school level, at which point the directions remind students to plan, draft, revise, and edit their responses. The extended CRs are scored as final products, with points awarded for each of three dimensions and then aggregated. --Although the AASCD specs mention writing, the only samples available are SR reading items.
Oklahoma	--In the Oklahoma School Testing Program (OSTP), but only in Grades 5, 8, and 10 --In the ACT without Writing or SAT without Essay --In WIDA ACCESS for ELLs 2.0 --In Dynamic Learning Maps Alternate Assessment (DLM), which is used for ELA in the Oklahoma Alternate Assessment Program (OAAP)	--The sampling of items provided is incomplete, but it appears that some of the tests include editing/revision exercises based on faux student texts. In addition, writing is assessed in three grades. Extended CRs are based on passages and may be preceded by SR reading items; planning pages or scratch paper are provided, but only the final essays are scored (analytically). (Note that the blueprints insist that "Students will use a variety of recursive reading and writing processes.")
Oregon	--In the SBAC --In the required Local Performance Assessment --In the PSAT/NMSQT --In the English Language Proficiency Assessment for the 21st Century (ELPA21) --In the Oregon Extended Assessment (alternate assessment)	--The Local Performance Assessment requirement includes writing every year from Grade 3 onward. These writing assessments could take different forms but must be standardized in terms of the task and scoring. The state provides brief sample prompts in different modes, without any textual stimuli. Each essay or narrative is scored analytically for several different traits, even including (at the higher levels) such aspects as Voice, Word Choice, and Sentence Fluency, but all of the rubrics focus on the final product rather than on the process of creating it. --Although writing is included in the skills to be measured in the Oregon Extended Assessment, the tasks involve identifying elements of text, choosing correct words, or taking dictation. The writing process is not addressed other than at the level of learning basic skills relevant to writing.

State/Agency	In which of its tests are writing skills intended to be assessed?	How do any tests that are specific to this state/agency measure writing skills, and do they assess intermediate phases of the writing process?
Pennsyl-vania	--In the Pennsylvania System of School Assessment (PSSA) 3–8 --In the end-of-course Keystone Exams --In WIDA ACCESS for ELLs 2.0 --Not in the Pennsylvania Alternate System of Assessment (PASA), which measures only reading	--The PSSA ELA includes two kinds of essay tasks, one a "text-based analysis," without preliminary exercises, that responds to a given passage; the other, an extended response to a brief prompt (informative, explanatory, or argumentative). Directions allude to the writing process by making suggestions about planning, drafting, and proofreading. Only the final product is scored (holistically). --The relevant Keystone Exam is in Literature. This test presents a literary passage, followed by SR reading items, and then a short, focused CR (a paragraph or so) analyzing an aspect of the text. Extended CR tasks do not appear to be included.
Rhode Island	--Currently in PARCC, but this series of tests is being replaced by a new Rhode Island Comprehensive Assessment System (RICAS), which apparently is the same as the Massachusetts Comprehensive Assessment System, as per Borg (2017) --In the Diploma Assessments --In the PSAT/NMSQT --In the SAT, apparently without Essay --In WIDA ACCESS for ELLs 2.0 --In Dynamic Learning Maps Alternate Assessment (DLM)	--See pp. 42–44 for ideas about writing assessment in the Criteria and Guidance document that predates the adoption of PARCC but is still a reference; attention to the writing process would take place in the classroom via feedback on drafts, peer review, and self-assessment. RI is implementing a system of interim and formative as well as summative assessment, but no details are available. Apparently RI is adopting MA's system, but even that is in transition, as per the MA site; the Next-Generation MA Comprehensive System (MAS) will be a computer-delivered blend of PARCC and new MA-proprietary items (no information available about the latter). --The Diploma Assessments are two performance assessments that will be established by a school or district ("student portfolios, exhibitions, senior projects and/ or comprehensive course assessments"). This initiative is in cooperation with the Center for Collaborative Education via the Quality Performance Assessment program; although most of this organization's tools for designing and scoring such assessments are in a book that must be purchased, the set of tools that are available to the public includes a Student Peer Editing Checklist.
South Carolina	--In the South Carolina College-and-Career-Ready Assessments (SC Ready) --In the End-of-Course English I --In the ACT with Writing --In WIDA ACCESS for ELLs 2.0 --In WIDA Alternate ACCESS for ELLs --In Multi-State Alternate Assessments (MSAA)	--The SCReady ELA tests and the End-of-Course English I include some peer-review-type editing exercises and writing prompts that are "text-dependent analyses." A passage is presented and the student writes an essay about an aspect of that text; no preliminary reading exercises about the text. Only the final product is scored (holistically). The Writer's Checklist provides reminders about planning, drafting, and proofing.

State/Agency	In which of its tests are writing skills intended to be assessed?	How do any tests that are specific to this state/agency measure writing skills, and do they assess intermediate phases of the writing process?
South Dakota	--In the SBAC --In WIDA ACCESS for ELLs 2.0 --In WIDA Alternate ACCESS for ELLs --In Multi-State Alternate Assessments (MSAA)	N/A
Tennessee	--In TNReady for 3–8 --In TNReady End-of-Course English I, II, and III --In the ACT without Writing or SAT with Essay --In WIDA ACCESS for ELLs 2.0 --In Multi-State Alternate Assessments (MSAA)	--According to the blueprints (no sample items available), TNReady ELA tests include editing items and extended CRs in various modes (opinion/argument, informative/explanatory, narrative) that are to be based on given passages, although the texts appear to be a point of departure rather than the subject of analysis. At Grade 5 and up, students are given preliminary SRs about the passage(s) to complete before writing the essay, which is scored for four traits.
Texas	--In the State of Texas Assessments of Academic Readiness (STAAR) at Grades 4 and 7 and EOC English I and II in high school --In the Texas Pilot Writing Program --In the Texas English Language Proficiency Assessment System (TELPAS) --In the STAAR Alternate 2	(Note that the STAAR interim and formative assessments include reading only.) The STAAR summative tests report writing scores in the categories of revision, editing, and composition. The two former skills are measured via SR items based on faux student texts (i.e., simulation of peer review). Prompts for the essays are brief, either expository in the lower grades or issue-type in the higher grades; space is provided for planning but only the final product is scored (holistically). --The Texas pilot portfolio-style program is of particular interest because, in addition to collecting and scoring timed writing samples, evaluators will also assess "the student's ability to follow the writing process from rough draft to final product" (p. 2 of "House Bill 1164," attached to the reference entry) by applying rubrics to artifacts of that process included in the portfolios. Specifically, the portfolios will include: **"two timed writing samples** collected at the beginning and end of the school year [and]; **three process samples**, providing evidencing of different writing styles" ("House Bill 1164," pp. 1–2) that were created during the school year. Process samples would include plans, drafts, feedback, etc., in addition to the final-draft versions. See the web page for a video about applying the rubrics to portfolios. In brief, the timed samples and the process samples are both scored for the categories of "expressing ideas; organization and structure; and use of language and conventions."

State/Agency	In which of its tests are writing skills intended to be assessed?	How do any tests <u>that are specific to this state/agency</u> measure writing skills, and do they assess intermediate phases of the writing process?
Texas, continued		In addition, the process samples as sets are also scored for "planning; drafting; revising; and editing, publishing, and attention to feedback." More detailed information about the expectations, evidence, and examples is in the video, but it is worth noting that value seems to be attached to continuity and linear development of ideas from planning to final draft, even though that abstract model may not fit all writers' actual processes.
		--TELPAS takes a portfolio approach: the measure consists of assembling a collection of at least five writing samples per student (classroom assignments, assembled according to specified guidelines for subject matter) and scoring these collections holistically for proficiency level. "Though TELPAS is administered in the spring of the year, teachers use the holistic assessment process in formative ways throughout the year to identify and respond to the needs their ELLs have related to learning to express themselves clearly in English" (from the *Educator Guide to TELPAS*, Texas Education Agency, 2011, p. 82).
		--The STAAR Alternate 2 writing assessments include SR items focused on recognizing elements of writing and making minor edits and revisions; no CR writing tasks.
Utah	--In SAGE (Student Assessment of Growth and Excellence) --In ACT without Writing --In WIDA ACCESS for ELLs 2.0 --In Dynamic Learning Maps Alternate Assessment (DLM)	--In SAGE ELA, writing is assessed every year from Grades 3–11, with two essays per test, each based on a set of given sources. Scratch paper and an online notepad are provided for planning. The final drafts only are scored for focus and organization; evidence/elaboration; and conventions/editing.
Vermont	--In the SBAC --In WIDA ACCESS for ELLs 2.0 --In WIDA Alternate ACCESS for ELLs --In Dynamic Learning Maps Alternate Assessment (DLM)	N/A
Virginia	--In Standards of Learning (SOL) --In WIDA ACCESS for ELLs 2.0 --In WIDA Alternate ACCESS for ELLs --In the Virginia Substitute Evaluation Program (VSEP) and the Virginia Alternate Assessment Program (VAAP)	--Under the SOL system, writing is assessed at Grade 8 and high-school EOC. Although phases of the writing process are mentioned in the standards, the tests include SR exercises for most aspects and the CR tasks are scored analytically as final products only. (The program calls it focused holistic scoring, but the domains are assessed independently.)

State/Agency	In which of its tests are writing skills intended to be assessed?	How do any tests that are specific to this state/agency measure writing skills, and do they assess intermediate phases of the writing process?
Virginia, continued		Sample prompts are not text based but rather are brief statements/questions for expository essays or else Issue-type prompts. Students are given checklists for writing that mention the phases of the writing process in sequence, but the emphasis is on the qualities of the finished product.
		--The VSEP is based on the mainstream standards; it is intended for students with disabilities who would be able to meet those standards but, even with accommodations, are unable to take the regular tests. The VAAP is based on modified or "aligned" standards and is intended for students with significant cognitive disabilities.
		Both the VSEP and the VAA include assessment of writing skills, including mastering elements of the writing process (planning, revising, editing), but the nature of the evidence is individualized: collections of evidence may include work samples, quizzes, anecdotal observations, interviews, audio, video, etc.. However, in both programs, evidence must be obtained "under testing conditions." Pearson conducts the scoring.
		In the VAA, evidence for mastering elements of writing may range from
		from SR exercises at Level I ("demonstrated with significant support and modification") to writing samples of a paragraph or more at Level III ("fully demonstrated").
Washington	--In the SBAC --In the English Language Proficiency Assessment for the 21st Century (ELPA21) --In the Washington Access to Instruction and Measurement (WA-AIM), the alternate assessment	--The WA-AIM uses "Access Point Frameworks" aligned to the Common Core State Standards and classified by three levels of complexity. As the task directions occasionally mention, students may not necessarily always do the physical writing themselves.
		Writing tasks include SR and short CR (at lower grades, a sentence in length, including writing a topic sentence), and at the higher level, can range up to writing a short research report based on given sources. By fifth grade, there is a particular emphasis on research skills, such as finding certain information in sources. The tasks do help to deconstruct the writing process into more manageable increments, though the coverage of skills may be limited within each test.
West Virginia	--In the SBAC --In the ELPA21 --In DLM Alternate Assessment	N/A

State/Agency	In which of its tests are writing skills intended to be assessed?	How do any tests that are specific to this state/agency measure writing skills, and do they assess intermediate phases of the writing process?
Wisconsin	--In Wisconsin Forward Exams 3-8 --In ACT Aspire --In ACT with Writing --In WIDA ACCESS for ELLs 2.0 --In Dynamic Learning Maps Alternate Assessment (DLM)	--Apparently developed and scored by Data Recognition Corporation, The Wisconsin Forward Exams use the company's "College and Career-Ready" item bank (Data Recognition Corporation, 2017. p. 2.). ELA tests include SR writing-related items for "text types and purposes; research; and language conventions." The writing CRs are "text-dependent analyses," which are concerned with an aspect of a given text. TDA tasks include a Plan/Focus/Proofread writing checklist, but only the final responses are scored (holistically). These tasks do not include any preliminary SR items about the texts. Note that DRC has automated the scoring of the Text-Dependent Analysis items via AI by Measurement Inc.'s PEG; no wonder the main page for the Wisconsin Forward Exam touts the assessment's affordability. Human scoring is conducted for anomalous responses and for a fraction of all responses as a check.
Wyoming	--In forthcoming new state assessments --In ACT Aspire --In ACT with Writing --In WIDA ACCESS for ELLs 2.0 --In WIDA Alternate ACCESS for ELLs --In the Wyoming Alternate Assessment (Wy-ALT)	--Wyoming is working with AIR on new state summative assessments that will include at least one writing assessment "per grade span"; no further information is currently available. --The new Wy-ALT is similar to and shares items with Ohio's alternate assessment, also developed by AIR. Writing is included on the blueprints for the Wy-ALT, but the only sample items available appear to be reading items.

Note. Some of the testing systems using the state's own name are actually the same as or close variants of PARCC (e.g., Louisiana) or SBAC (e.g., Michigan).

Table B2. Other Education Agency Writing Assessments and Specific Writing Measurements

State/Agency	In which of its tests are writing skills intended to be assessed?	How do any tests that are specific to this state/agency measure writing skills, and do they assess intermediate phases of the writing process?
Bureau of Indian Education	--In the SBAC for which it is listed as a member, but the Navajo Nation has petitioned to use PARCC --In WIDA ACCESS for ELLs 2.0 (BIE is listed as a member of this assessment consortium)	N/A
Department of Defense Education Activities	--In PARCC --In the International Baccalaureate (IB) --In LAS Links (for ELLs) --No details available about the DoDEA's own alternate assessment	N/A
Guam	--In ACT Aspire --Unknown for the "Guam Standards-Based Assessment" in ELA --In Multi-State Alternate Assessments (MSAA)	N/A
Northern Mariana Islands	--Unknown; Department of Education website is under construction; info below derived from the WIDA and MSAA sites --In WIDA ACCESS for ELLs 2.0 --In Multi-State Alternate Assessments (MSAA)	N/A
Puerto Rico	--Not clear whether or not the Puerto Rican Tests of Academic Achievement assess writing	N/A
U.S. Virgin Islands	--In SBAC --In WIDA ACCESS for ELLs 2.0 --In Multi-State Alternate Assessments (MSAA)	N/A