



## Assessing Writing in the Digital Age

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### Abstract

*This paper reviews the history of writing assessment and then reflects on ways our current assessment practices should evolve and adjust to the ways we make meaning today. The paper proposes that with the increased amount of reading and writing we do on the web using images and texts, it is important to ensure that writing assessments account for these emerging and perhaps dominant forms of literacy. The paper defines and analyzes digital literacies: visual and internet and what they would look like in our writing assessments.*

**Keywords:** Assessment, Digital, visual, Internet, Literacy

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### Introduction

Our current generation of students carry the internet in their pockets and communicate through multiple modes and methods that take on a variety of forms (tweets, text messages, videos, pictures, blogs, comments, etc.). Students today engage in far more practices than the current writing assessment exams account for. If writing assessment is designed to ensure that students are prepared to write according to the expectations of present society, then it is important to design writing assessment systems to account for these new forms of literacy. With the increased use of writing with computers and internet, it is important to ensure that writing assessments accounts for these emerging and possibly dominant forms of literacy. Huot (2002) says, “we need to understand that assessment can be an important means for ensuring the values and practices that promote meaningful literacy experiences and instruction for all students” (p. 176). In other words, “what we assess, grade, or test ultimately determines what we value” (Huot, 2003, p. 68). Patricia Lynne (2004) writes, “What is more interesting and important about writing assessment, however, is that the objects that have emerged in the composition studies’ literature bear the mark of a value system that is often alien to the current paradigmatic structure of composition studies itself” (p.10). Lynne (2004) further notes that “apart from context and social practices, the written (or spoken) word has no particular meaning” (p.46). That means, if a writing assessment is not embedded in our current social practice, it is otherwise meaningless. Since most of the social practices today are centered around computers, smartphones, and the internet, it is essential to include those components in a writing assessment system as well. This paper examines the history of writing assessment and reflects on ways our current assessment practices should evolve and adjust to the world we live in today.

### History of Writing Assessment

Writing assessment in higher education happens predominantly at four situations: 1) to get admitted to a university; 2) placement into the first-year writing classes; 3) writing assessment within the writing classes during and at the end of a course; 4) writing assessment to fulfill graduation requirements. In writing studies, assessment can be understood in two broad categories: *formative* (used to improve student writing) or *summative* (designed to provide information about student writing ability in groups or levels) (White, 1985, p 133). While formative assessments are individualized evaluations used to help students become better writers or help improve a particular student-written text, it provides a platform for dialogue and communication between student writing and teacher’s evaluation (White, 1985). This type of assessment is indeed valuable when the students are writing drafts and the purpose is to help students improve through feedback. Summative assessments on the other hand as White (1995) explains, are “designed to produce information about the writing ability of students in groups” (133). This type of large-scale assessment is most useful in ascertaining the preparedness or level of a particular population; this can occur within various contexts with more narrow purposes: gatekeeping, placement for first year writers, proficiency for rising juniors, or barriers for nearly graduated seniors, or final assessment of a writing class. Summative

assessments are comparatively a faster form of assessment, which offers students very little opportunity to be critical agents of their own knowledge. Instead, students are seen as just a number or as a member of a group. However much of summative assessment comes from our history of large-scale assessment, which has gone through shifts of direct and indirect writing assessments.

In a direct writing assessment, the student is asked to produce a piece of writing for evaluation. *Direct writing assessments* not only assess a student's knowledge of grammar and writing conventions but can also determine how well a student can think, plan, and use language to convey meaning. On the other hand, in an *indirect writing assessment*, students are assessed on their knowledge of rules and conventions around writing and reading but not directly writing itself. Thus, several objective and psychometric tests around grammar, writing, and reading comprehension are often referred to as indirect writing assessments.

In early 1800s, the post-secondary education system began to value writing, and thus "our assessment practices shifted from oral to written examinations; educators increasingly relied specifically on examinations of writing in English in large parts because of persistent increases in student enrollments" (Lynne, 2004, p. 17). According to Robert Connors (1997) in *Composition Rhetoric*, Harvard led the way with essay testing—"with the advent of written entrance exams at Harvard in 1874, led to the general adoption of such exams at most established colleges" (p. 11). The main reason for this entrance exam was to assess students' mechanical skills and preparedness of writing. Trachsel (1992) provides a full history of these entrance exams held at Harvard in her book *Institutionalizing Literacy: The Historical Role of College Entrance Examinations in English*. These writing tests at Harvard were the forerunner to writing assessment and placement in the field of writing studies. These tests were based on an idealized literary curriculum of that time and were punitive in nature to eliminate the excess influx of students and select those who demonstrated readiness for college.

Composition scales were first used at Harvard and became the first form of large-scale writing assessment from 1874-1905 (Lynne, 2004). "Composition scales consisted of a graduated series of essays that served as models for comparisons with actual student compositions to determine the merit of the students' work" (Lynne, 2004, p.23). Hillegas (1912) chose 21 essays written by the students as models to show high, low, medium, and various standards of writing. These models were used as the guideline to score and assess the student writing. At the time, several educators criticized the composition scale for its rigidity, while others appreciated the idea of uniformity in standards. It was because of these composition scales that scholars, teachers, and administrators agreed on a need for uniformity in grading, scoring, and marking (as cited in Trachsel, 1992). By the beginning of twentieth century, writing program administrators, writing teachers, and educational scholars had tried working on refining the methods of assessing student writing; however, by 1920s, most research on direct assessment of student writing, including composition scales had stopped and people were moving to indirect testing of writing (Lynne, 2004, p. 25). In fact, around the same time that writing exams were beginning, Alfred Binet (1859-1911), created the first "intelligence test" in 1905. Binet's development of this test led to the beginning of indirect assessment of writing in psychometrics, also leading to the creation of several IQ tests (as cited in Trachsel, 1992).

With the coming of age of objective testing, indirect assessment of writing became popular and were popularly used from 1910-1970. Harvard started the tradition of their own entrance exams, and soon after more colleges developed their own entrance exams. With the need of college entrance exams and the advent of objective and indirect assessment of writing, College Entrance Examination board (CEEB) administered its first examination in 1902. This exam assessed students of literary texts, their memory of textual features, and descriptive detail. By 1916, CEEB changed this exam to assess students of their ability to interpret texts and express themselves in writing (Lynne, 2004, p. 27). By 1921, "Edward L. Thorndike demonstrated that mental tests from the field of psychology were better predictors of college performance than the existing CEEB's essays" (Lynne, 2004, p.27). Based on Thorndike's suggestion and other psychometrics, CEEB administered its first Scholastic Aptitude Test (SAT) in 1926 (Lynne, 2004, p. 27). While multiple choice tests and indirect assessment of writing came and dominated writing assessment from early 1905 to 1971, some form of them continue to stay and are a major part of writing assessment even today. In the mid 1900s, several educational scholars insisted on some form of direct assessment of writing; thus, a section of an impromptu writing test on a topic was added to the writing tests. In response to assessing these impromptu writing tasks on different topics, Education Testing Service (ETS) developed the concept of holistic scoring.

Holistic scoring is a method by which trained readers evaluate a piece of writing for its overall quality and "general impression scoring." This method dominated our assessment practices from 1970-1984. In his accounts of holistic scoring and the time when objective tests dominated the writing assessment, White (2009) says, "While the reliability of multiple-choice tests was and remains higher than that of direct measures, the validity of indirect testing in this field was open to serious question: only a few statisticians were fully convinced that [indirect writing assessment] in fact measured any writing ability" (p. 20). The 1950s and 1970s was dominated by the concern of validity in writing assessments. Opponents of objective and indirect writing assessment like Rexford Brown (1978) argued saying, even the best and most reliable objective tests can only assess "reading, proofreading, editing, logic, and guessing skills. [These tests] cannot distinguish between proofreading errors and process errors, reading problems and scribal stutter, failure to consider the audience or lack of interest in materials manufactured by

someone else” (as cited in Yancey, 1999). Several studies at the time (1966) concluded that best writing ability “would include both multiple-choice and written portions” (p. 20). With the use of impromptu writing tasks in assessment, holistic scoring became prevalent. While the high reliability was achieved through multiple choice questions, the written portion helped make the writing assessment valid, as it was directly assessing the writing ability. As direct assessment of writing was incorporated back into the tests, more WPAs argued for the written portion to be closer to the curriculum and classroom writing environment.

In year 1980, WPAs, Peter Elbow and Pat Belanoff argued for assessing writing through Portfolios. Elbow & Belanoff argued for using classroom materials to create a writing assessment that “embodied multiple writing samples written on different occasions and in various rhetorical modes [and genres],” which came to be called the Portfolio (as cited in Yancey, 1999, p. 138). Elbow & Belanoff (1980) argued saying that a community standard is achieved through portfolios and through these common standards fairer grades will be derived. Also, holistic scoring benefited the Portfolio assessment (as cited in Yancey, 1999). However, with using portfolios, scholars and WPAs have debated if portfolios should be graded at all, and if a holistic score can fairly justify the complexity represented in a portfolio. The other question with portfolio assessment has been if its display should be in a paper form or hypertext, namely in an electronic form.

With the coming of technology and digital literacy in the 1990s, the writing program administrators began to argue that writing teachers must consider the social situation and the medium in which a composition exists before assessing it. Educational Testing Service (ETS), the world’s largest administrator of standardized tests, annually administers twenty million exams in the United States. ETS did not computerize its tests until the late 1990s, ten years after personal and home computers became popular. With the popularity and dominance of computer use, computer-based assessment has become important to consider because it most closely relates to the literacy practices of today. Whithaus (2005) and other writing studies researchers who support using technology in writing assessment, say that composing and literacy “is no longer about writing or saying” and lies in the intersection between multimodal digital literacies. Witthaus (2005) claims “technology standards and computer-mediated communication suggest the skills needed to survive in the 21st-century academy and workplace are not the same skills developed for print-based literacies” (p. 108). Furthermore, those multi-modal skills, such as developing online portfolios/web pages that integrate hyperlinks and video are dialogic; thus, “a technique for writing assessment that acknowledges the interaction and dialogue needs to be formulated” (p. 87).

Yancey in her article, “Looking Back as We Look Forward,” traces the trajectory of writing assessment over the last sixty years. She identifies three waves of writing assessment. The first wave she identified (from 1950-1970) incorporated multiple choice tests to measure writing ability. The second wave (1970-1986) integrated holistic scoring, and the third wave developed portfolios (from 1986 onwards). By focusing on these waves of assessment, Yancey acknowledges that writing assessment has always been a subject of evolution and will continue to evolve writing assessment theory and practice in the future. In his article, “Toward a New Theory of Writing Assessment,” Huot (2002) explains that past writing assessments were created by psychometric community that had “roots in a positivist epistemology” and assumed “that student ability in writing, as in anything else, is a fixed, consistent, and a contextual human trait” (p. 549). Huot (2002) and several other assessment scholarships like that of White’s (1985) explain the reason for the historical tussle between reliability and validity measures of writing assessments—the arguments for direct and indirect writing assessment stems from fundamental “theoretical differences” of psychometric and composition communities. Through the multiple shifts writing assessment has gone through, it has always been a place of contest, politics, and considerable disagreement. While most educators argue against indirect writing assessment, it continues to dominate the writing tests used in either admitting students to a university or placing them into first year writing classes (example: ACT (American College Testing), ACTE (Association for Career and Technical Education), SAT (*Scholastic Aptitude Test*), EAP (Early Assessment Program)).

However, one important thing to conclude here is that we must be open and willing to change our practices. Our history of writing assessment has gone through several changes, and we are again on the precipice of change in our literary practices. Our current definition of literacy is not just limited to writing and reading now. Literacy today lives and thrives in digital texts, visuals, and internet use. Thus, the current methods of writing assessment should be expanded to account for visual and internet literacy.

### **Visual Literacy**

Baron (2009) says that making meaning through visuals is even more important today because of the increasing use of technology. He says that visual art like photography, film, or videos that rely on technology can easily be used to misinterpret meaning. Thus, making its learning and assessment even more imperative. Images are all around us and the ability to make or interpret meaning through visuals is a vital skill to teach and assess. Critical thinking when propagated through visuals will prepare students for writing happening in the real world. If an image is worth 1000 words and is rapidly growing to be an important part of how we make meaning, then our assessment practices should value these skills.

Visual literacy is a resource for making meaning through visual compositions of image and text. This definition includes videos, images, pictures with and without text. Images are all around us, and the ability to interpret them critically is a vital skill for our students to learn. Kress (2003) argues that technology is leading us to a “radical social change, a redistribution of semiotic power, the power to make and disseminate meaning” (p. 25). He argues that everything on the screen is based on the logic of image which dominates the semiotic organization of the screen. Kress (2003) states that “whether on the screen or on the page, [text] is accompanied more and more by image, whether as picture, diagram, or map” (p. 65). He claims, “The use of image as a fully representational mode is having its effect on the very syntax of language” (Kress, 2003, p. 167). Indeed, much of what we read today is on the screen, and if reading of written text on screen is becoming more of a combination of text and image with the logic of the screen dominated by visuals, it is imperative that we begin to value the ability to think critically through images. Students need to be proficient in visual literacy. It is important to teach our students to think critically when they see an image. We should be teaching and assessing our students to analyze the situation that gave rise to the visual text. Our current writing assessment should have questions that are relevant to the form, context, and content of images. In addition to questions around purpose, audience, context, we should be asking what form or medium is the visual text? How does the form and content correspond and complement together? What does the nature of the visual text reveal about the culture, history, and politics that produced it?

When students see an image, we should teach them to be able to think about who or what is being depicted, what draws their attention visually in the picture, how that helps to affect the understanding of the image, how the color and shapes affect the understanding, how the texture or size of the image affects the meaning, what’s the purpose of the image, If the image is (new or old) is it relevant to the context, and finally, how the context of where the image is used (web, media, cartoon, graphic novel, or animation) affects the perspectives of making meaning. These questions are not exhaustive, some are derived from Michel Foucault’s discussion of what should be addressed when talking about genre, content, and discourse.

According to a 2005 study conducted by the Pew Internet and American Life project (Lenhardt & Madden, 2005), 57 percent of teens who use the Internet are also considered media creators. The study defined media creator as someone who “created a blog or webpage, posted original artwork, photography, stories or videos online, or remixed online content into their own new creations.” These numbers must have increased since 2005. Jenkins (2009) says that “fostering such social skills and cultural competencies requires a more systemic approach to media education in the United States” (p. 4). Thus, our teaching and assessment curricula should propagate the use of these skills effectively. When the youth is making meaning using these skills, why are we still fixated on assessing them only on timed writing tests?

### ***Internet Literacy***

Another important form of literacy that we use today is the complexity of making meaning on the web. Can you imagine a college where students cannot or do not use the internet? Researchers have found that college students spend more time on the internet than the general population. Jones et al. (2009) conducted a survey on the internet use of college students and found that they “spend considerably more time online each day than users in the general population.” The Internet is the “information cornerstone of their lives – not just on school projects but on every subject that matters to them” (Pew Research). Because of this increased need to use the internet, internet navigation has become an essential skill for college students. Internet literacy has become a dominant element of academic, professional, and social lives, so it is important to ensure that students are taught and evaluated on their ability to make meaning in this mode. Internet literacy means the ability to search, research, access, and examine the source on the internet. More importantly, since these students engage in internet activities in their coursework, it is important to assess and teach them the ability to navigate in these contexts. Lynne (2004) writes, “The instructional needs and goals of the context define the substance of the assessment and consequently its meaningfulness.”

This increase of internet use in academics leads to a demand in instruction ensuring that students understand ways to navigate the internet appropriately for research. Teaching students the difference between a journal article and an opinion piece is significant. Instruction on finding relevant, reliable, and accurate online sources is becoming commonplace in composition courses. Instructions on how to retrieve information from online databases and websites are common in composition textbooks, and writing instructors often find themselves teaching lessons on internet research.

Therefore, one portion of a writing assessment exam could include an evaluation of a student’s ability to navigate the internet for reliable sources. Our writing assessment on internet literacy should examine if students are able to judge the accuracy, objectivity, and trustworthiness of a source. What can they say about the credibility of the author? Who is the sponsor or responsible for the information presented? How many perspectives are presented? Students could be given a controversial topic and asked to find relevant sources on that issue. Students would then research from a variety of sources and explain why the sources they have identified are credible, objective, well researched, and relevant.

If explicitly model how to evaluate sources and provide repeated opportunities for students to practice and apply these strategies, we will promote a culture that verifies, investigates, negotiates perspectives, and detects bias

and foul play. If we make internet literacy commonplace on assessments like the SAT, ACT or EAP, we will be sending a message to the incoming students and the world that internet literacy is an extremely important skill to hone before using the web to access information.

### **Adapting to Digital Assessment: Discussion**

Integrating visual and internet literacy practices into large scale or small-scale writing assessment assumes using a computer for the exam. That would mean, the cost of taking these exams might increase. In addition, the immediate implication of assessing writing using computers is that it “diffuses the power of the author” (Kress, 2003). Writing on the screen is dialogic, collaborative, and constantly branches from borrowing of ideas, making the power of the author less valuable. Reading and writing through papers is a very personal process between the author and the reader, which allows the reader to imagine a world far from the text autonomous from their own. Reading through the screen might change the dynamics of that processing. Also writing on screen would mean that students are getting help from the word processor and other tools available to them that are not there when they write on paper. Teachers and assessment coordinators who are skeptical of giving computers and internet during a writing exam, argue saying it might not produce an authentic piece of writing and would facilitate plagiarism. However, our current reality is that students write using these tools. They need to learn how to ethically integrate information from multiple sources (video, image, databases, and other media sources). They need to think critically about information they find instantaneously, and the types of collaboration internet enables and demands, and we need to teach and assess these skills.

Educators who defend digital literacy assume that our youth can acquire these skills on their own without any academic intervention, saying they know more about new media environment than their parents or teachers do. However just because computers and internet are mostly available at every household and in the tip of our fingers, we cannot assume that the students are mastering the use of these tools effectively (Jenkins, 2009). Also, assuming students, on their own, can develop the ethical norms needed to cope with a complex and diverse social environment online is problematic. Our youth requires to understand the digital haves and have nots of making meaning, and thus digital literacy needs to be part of our teaching and assessing curricula.

Cognitive scientists like Susan Carey at Harvard have shown that reading books, oral language, and written language together form the richest growth of language in early childhood (Wolf, 2008, p.84). Reading and writing on the paper are significantly important for the cognitive development of the brain, but we still don't know enough about how technology affects that development. Researchers who feel that the internet will and is replacing all the skills that the human brain has acquired over the years and wonders if the “hyperlinked” world is harming us in ways we do not know, might challenge or support these assessment practices (Carr, 2010). The emergence of new digital modes of making meaning have indeed changed our relationship to printed texts but have not dwindled reading and writing tasks. In fact, the digital literacy world has provisions for our youth to acquire core literacy skills and additional skills like using and understanding images, researching, networking, appropriating information, etc.

Fear and concern that the increasing use of technology might disable our ability to read and write in its traditional form is analogous to what Socrates feared about written literacy years ago. Socrates' view on writing—“this invention will produce forgetfulness in the minds of those who learn to use it, because they will not practice their memory. Their trust in writing, produced by external characters, which are not part of themselves, will discourage the use of their own memory within them” (Plato, 1925, as cited in Baron 2009). Despite Socrates' inhibition towards writing, Plato wrote the above text and made it accessible for us to read it. Socrates warned us that writing will weaken our memory, but we have still “come to value writing, sometimes even more than speech” (Baron, 2009).

Every time there is change or a paradigm shift in our world, we will have people like Socrates to question it, but that does not mean we can avoid the impending change that is happening now. We are moving towards change in our literary practices. Our definition of literacy is not limited to writing and reading now. Literacy today lives and thrives in varied digital forms. We should begin to provide explicit instruction for reading and writing in multiple modalities of text presentation to ensure that our current generation learns multiple ways of processing information.

### **Conclusion**

Assessing visual and internet literacy into our writing assessments (summative or formative) will create a more meaningful and relevant assessment. An institution need not do away with the direct writing assessment but could integrate ways to assess visual and internet literacy as well. Our writing assessment systems is getting obsolete and is based on measures that were created forty years ago. However, our literacy practices are constantly changing and so the suggestions mentioned above might need to be re-examined as technology progresses. It is our responsibility as educators to continue to observe the current literacy practices and ensure our assessment reflects that.

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