# Reflection: The Scaffolding behind Graduate Student Portfolios

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## Purpose

Within the education community, and particularly within the community of teachers of language and literacy, there exists a tacit understanding of the value for reflection that envelops composition. Embedded in this awareness is both the role of reflection as a mental process that assists in the revision of a composed product and the importance of the revised product as an assessment of competence. This paper examines the reflection process of portfolio artifact revision as part of the assessment of graduate students and the value of scaffolding this process. What is known about the processes of reflection appears, upon review of the research, to be allied to similar processes of composing. Indeed, reflection might exist without composing, but composing is informed by reflection. In considering the processes of composing and reflecting, the guiding question, "What is reflection?" provides a suggestion, contained within the research, that review and revision procedures are connected with the composer's purpose. A key point, for example, in the work of Lester Faigley and Stephen Witte (Faigley & Witte, 1981) is that revision results from the degree to which modifications bring a text closer to fitting the demands of the situation, and this cannot be done out of context and without purpose (p. 411). Understanding that composing a product entails review that leads to revision, the role of reflection must enter into the process.

## Thinking, Reflection, and Assessment

In "Teaching for Understanding," David Perkins provides examples that illustrate the importance of thinking about, in addition to acquiring, knowledge and skill (Perkins, 1993). The argument advanced by Perkins is that research on

understanding concepts and principles shows that these information-based constructs are not meaningful in isolation. Knowledge is situated. Perkins argues that understanding may be "broke" in the context of many traditional educational settings, but it is certainly not beyond repair. He advocates the use of constructivist learning models and calls for a "performance perspective" on understanding where "The learners must spend the larger part of their time with activities that ask them to generalize, find new examples, carry out applications, and work through other understanding performances. And they must do so in a thoughtful way, with appropriate feedback to help them perform better" (p. 2). This is not to imply that teaching for understanding is simply presenting information with greater clarity or that learning means that information is received more clearly. Rather, Perkins believes that "It requires thinking in a number of ways with what you heard -practicing and debugging your thinking until you can make the right connections flexibly" (p. 2).

Is this metacognitive activity some form of reflection? Perkins, in describing assessment of learning, does not reference an image of a fixed, final product. Rather, he believes "...the constant factor is the frequent focus on criteria, feedback, and reflection throughout the learning process" (p. 3). Reflection in preparation for product assessment is an on-going process, not simply an end product. In support of this idea, in their treatment of meaningful learning and constructivist concepts, Anderson and Krathwohl outline the active processing required of learners. They characterize the importance of mentally organizing and integrating information as a prerequisite to the subsequent demonstration of constructed meaning. The construction of meaning

requires mental processing of information from numerous sources. When meaningful learning is constructed in a social context, the learning, by definition, is personal and the assessment of the learner's cognition should be done, at least in part, in an authentic manner. This requires some scaffolding in such a way as to allow the learner to reflect and respond to the suggestions and guidance received (Anderson & Krathwohl, 2001).

David Jonassen, in elaborating on the critical importance of what he identifies as cognitive tools, argues that when such tools are in the hands of the learner rather than the designer, construction of knowledge follows. Although Jonassen primarily references technology, he lends support to the concept of scaffolding and social learning theory in that his definition of cognitive tools broadly includes both mental and physical supportive structures (Jonassen, 1994). He posits "... that students cannot use these tools without thinking deeply about the content ... " (p. 1). Jonassen connects the learner's use of cognitive tools to generative processing of information where new, meaningful knowledge is constructed following periods of reflection. According to Jonassen, reflective thinking is "... a careful, deliberate kind of thinking that helps us make sense out of what we have experienced and what we know" (p. 2). The generative process requires support from not only books and computers, but also people. Jonassen concludes his argument by specifically stating the importance of the use of cognitive tools (both mental and physical) as a scaffold to the processes of articulation and reflection. “They scaffold the all-important processes of articulation and reflection, which are the foundations of knowledge construction” (p. 3).

## Theoretical Frameworks: The Social Perspective

Albert Bandura provides an initial perspective in his explanation of the social cognitive theory of human behavior (Bandura, 1991). Bandura maintains that human behavior is motivated and regulated by self-influence which is supported by self-monitoring and reflective processing activities, and he describes self-regulative mechanisms as having the sub-functions of "self-monitoring", "judgment", and "affective self-reaction" (p. 248). Bandura further generalizes about the self-regulation of human cognition in reference to purposive behavior that is regulated by forethought (p. 248). In a reference tied to a pragmatic perspective, he explains that following the formation of ideas, people "...anticipate the likely consequences of prospective actions, they set goals for themselves, and they otherwise plan courses of action that are likely to produce desired outcomes. Through exercise of forethought, people motivate themselves and guide their actions in an anticipatory proactive way" (p. 248).

Bandura explicates the flow of the self-regulatory system by detailing the linear processes that enable movement from self-observation to self-reaction. Initiated from self-observation, personal behavior is regulated by perceptions of performance and quality that lead to judgments pertaining to personal standards and performances that are tied to external references, values and personal and external determinants of success. Following judgment, self-reaction may be evaluative either positively or negatively or tangible in that rewards or punishments may be self-assigned. There may also be no reaction. Bandura cautions, "It should be noted that people do not passively absorb ready-made standards from whatever social influences happen to impinge upon them. Rather, they construct for themselves their own standards through reflective

processing of multiple sources of direct and vicarious influence" (p. 254). The process of self-regulation is clearly reflective. It is both social and personal, leading to the potential for behavioral changes.

The link between composing and reflecting may rely on a social context associated with a deeply, internalized mechanism. A number of researchers have documented the processes of revision in composing. Florio and Clark (Florio & Clark, 1982), in their ethnography of second and third graders engaged in the composing process, conclude that two of the most powerful functions of writing observed in the elementary classroom, writing to know oneself and others and writing to occupy free time, were not responded to in a manner that would encourage reflective activity. Although students had legitimate things to address to chosen audiences, they were not given constructive feedback within the social learning context. Teacher-directed activities were responded to, however, as a community function (classroom rules) and publisher-directed worksheets were evaluated, but student journals and free-writing activities were left without evaluative feedback that might have inspired self-regulation. In contrast, Sondra Perl observed that unskilled college writers utilize a consistent composing process observable in subsequences of prewriting, writing and editing that suggests an internalization of standards –lessons learned- and a self-regulatory mechanism at work (Perl, 1979). This calls into focus important questions related to Bandura's explanation of social cognitive theory of human behavior: Does reflecting precede composing? Some knowledge fund surely must be available to allow for reflection. When students create a product, is reflection, as illustrated by Bandura, part

of the self-regulatory system that allows for revision? Does the self-regulatory system require both social and personal feedback in order to establish a basis for reflection?

To begin to answer these questions, one might look once again at the social context of learning and reference the work of L. S. Vygotsky to help determine the point at which composing has meaning. A central construct in Vygotsky's theory of learning is social interaction. Within the instructional process, social interaction provides the necessary link that a child needs to understand a scientific concept, that is, a nonspontaneous concept. The clarity of this can be illustrated in an investigation that Vygotsky uses in *Thought and Language* (p. 103). For this set of observations, Vygotsky explains that the completed part of a child's level of mental development is often measured in traditional psychological studies by the child's ability to solve a set of standardized problems. Vygotsky believed that this is only the completed picture of a child's mental development. Yet, when Vygotsky observes two children with the same mental age struggling with the same difficult task, the one who receives some appropriate assistance solves the problem and the other does not. This difference between mental age and problem-solving ability accounts for a larger zone of proximal development in the child who benefited from social interaction (instruction). To extend this idea to the processes of reflecting and composing, when the instructor provides assistance within the composing process, scaffolding occurs in a social context. The scaffolding provides a model for the reflective processes and connects the composer with the instructor, the peer community and the audience. Scaffolding links nicely to the research of Hull and Rose where one might see how important it may be to allow

students to imitate a chosen discourse community. Examples of written discourse provided within a social learning context may be enough for composers to make judgments followed by reactions that constitute behavioral changes (Hull & Rose, 1988). All composers (reflectors) need to consider the "complex cognitive and social processes that produced the writing they read" (p. 2). In so doing, composers reflect first, then write, allowing for further probing of ideas in a recursive, generative process.

## Theoretical Frameworks: The Cognitive Perspective

The process of composing appears to be a dynamic social process, yet internal structures cannot be ignored. Internal mechanisms are at work as composers make choices and evaluate their artifacts. Flower and Hayes address the fundamental questions about the process of composing from the "inner-directed" cognitive perspective: If the processes of rhetoric and composition have to do with decisions and choices, then what are the criteria that govern choice? What guides the decisions writers make as they write? (Flower & Hayes, 1981) Answers to these questions certainly invoke some consideration of internal processes linked to a task environment as well as to self-regulatory mechanisms involving reflection.

In building and testing their model of hierarchical goal setting through the use of protocol analysis, Flower and Hayes have gone beyond the linear stage process model to develop a cognitive process theory of composing. The cognitive process model contains two major units: 1) the processes of generating ideas and 2) the hierarchical structuring of content and process goals. The hierarchical structure of idea generation and goal setting is based on defining the major elements and sub-processes embedded

within the overall composing process. The goal setting is related to both concrete and abstract thinking skills. Three major elements can be identified in the process: Task environment; Long-term memory; and Writing processes.

The connection between writing and reflection can be enhanced using the theoretical model developed by Flower and Hayes. The basic, logical premise can be supported in the argument that composing involves idea generation and goal setting, as does reflection. Therefore, reflection is a process not unlike composing. We can use a similar hierarchical structure to examine and support the reflective process (build scaffolds) for graduate students asked to reflect on portfolio artifacts. In reflecting, for example, a composer utilizes a tacit understanding of his/her work coupled with critical internal and external responses. The resulting analysis leads to a new perception of the product or process and is followed by synthesis. Searching beyond the tacit knowledge of the artifact, the processes and sub-processes of reflection constitute defining the problem and setting the goals which utilize the thinking processes of comprehending, organizing, categorizing, analyzing, synthesizing and evaluating (Hannah & Michaelis, 1977). Ultimately, reflective thinking is translated into visible, dynamic language, an artifact that provides evidence of new understandings, discovery or insight.

In Bizzell's critique of Flower and Hayes, this feedback is part of a meaningful social context in a discourse community that carries with it certain expectations that may have been defined differently in the original product and context (Bizzell, 1982). Bizzell contrasts the "inner-directed" cognitive perspective on the theory of composing with the

"outer-directed" social constructivist perspective. She sees two fundamental differences between the two. The inner-directed perspective emphasizes that the universal, fundamental structures can be taught across discourse communities because of their isomorphic features. The outer-directed theorists argue that the structures cannot be taught. Rather, they are a part of a discourse community specific to contextual language and conceptual development tacitly understood by members of a social group. Bizzell believes that the two theoretical perspectives must be blended in order to be useful in addressing what we need to know about composing. It is worth exploring these two theoretical perspectives more fully in an effort to connect the processes of portfolio reflection and assessment to the work of graduate students.

The outer-directed theorists argue that individuals are within a discourse community while learning a native tongue, and, as such, the learner does not learn a generalized form of language. Rather, the language habits are learned and connected to the context of the community. Thought processes are situated and conventions within a particular discourse community can be used to bridge to another discourse community -local to academic, for example. On the other hand, inner-directed theorists, led by Flower and Hayes, believe that thought processes are invariant and are called into play during composing (written discourse) in response to a problem-solving situation. They are not dependent upon a discourse community but rather on learned cognitive processes. A theoretical cognitive structure termed the "monitor" initiates a recursive process enabling the composer to switch from the three main parts of the writing situation.

Bizzell's response to Flower and Hayes is a call for integration of both inner and outer theoretical positions. It may be naive to attempt to create a blending of the two theoretical perspectives given the emerging alignment of cognitive composition theory with a scientific understanding of composing which Bizzell believes invalidates the experience and knowledge of the less able or culturally distanced learner. Truly, many modern societies are pluralistic. With pluralism come discourse communities that need recognition in the social context of learning. To do less, not only deconstructs social knowledge, but in the process devalues it! At best, perhaps the hierarchy from Flower and Hayes can be reconstructed to accommodate social learning theory as composers generate ideas and set goals based upon meaningful long-term memory. That is, long-term memory that is derived from a native discourse community and translated into meaning that illustrates a respect for both the original and the new interpretive communities.

## Portfolio Practices: Reflection and Assessment

The social and cognitive theories that subsume reflecting and composing support the processes in graduate student use of reflective scaffolds in the evaluation of products generated as part of a community of practice. Graduate students, while in the process of bridging into an academic discourse community, need scaffolds to support their progress. They require external feedback from colleagues and faculty that invoke reflective practices, self-regulation and monitoring. The inner-directed and outer-directed perspectives begin to blend as Bizzell argues they should. As graduate students reflect (think) about responses to their products, they do so by revising and

refining products and facilitating advancement from a local, perhaps informal, discourse community to one that becomes accepted within an academic community. This is what it means to reflect in the context of a learning community of graduate students.

In order to apply the raw material of reflection to graduate student portfolio artifacts, several pieces must be in place. Sperling and Freedman show that reflection requires feedback from the instructor in the form of written comments and feedback from peers, both spoken and written, responses from observations and interviews, rubric evaluations, and experience, sometimes from imitating a discourse community (Sperling & Freedman, 1987). While Sperling and Freedman refer chiefly to the composing processes of relatively sophisticated high-school writers, there may be connections with adult learners in practical instances illustrated in the work of Palincsar and Brown which will be reviewed below. First, however, Terry Underwood, in his dissertation research findings involving middle school teachers using portfolios to evaluate students' reading achievement, finds a connection between learning-goal orientation and achievement that cannot be ignored when thinking about graduate students and their need to review and refine composed products.

In his dissertation study at Charles Ruff Middle School, Underwood learned that portfolio assessment has a positive effect on reading achievement. Two groups of teachers were involved in Underwood's study of the effects of portfolio assessment practices. One team used traditional assessment practices while the other used an external examination committee of teachers who applied a rubric assessment of student

portfolios. The students whose work was assessed by the external committee utilizing a locally developed rubric performed significantly better on reading achievement measures. There was no significant difference in their writing achievement. However, the students who participated in alternative assessment groups showed higher levels of learning-goal orientation when compared to the students in the traditionally assessed groups (Underwood, 1998).

Underwood's research reveals some interesting connections between educational policies, assessment, and portfolio practices. He argues that portfolio assessment is unlikely to be utilized if resources are not made available in their support. In examining what appeared to be a tension underlying teaching methodologies and assessed outcomes, Underwood interviewed teachers in an attempt to explain the insignificance of the portfolio assessment treatment on writing achievement. Teachers at Ruff Middle School cited a mismatch in methodologies related to educational policies and confusion over assessment practices. Through the Framework for English Language Arts, California established core reading lists and also mandated guidelines for teaching language arts that conflicted with the independence teachers believed they had in the teaching of reading due to the failure of the California Learning Assessment System (CLAS). The result, in part, allowed some English teachers to utilize strategies that were theoretically aligned with the ideas of Louise Rosenblatt and extended by Judith Langer where students transact with their readings by adopting stances that may take them well beyond efferent reading practices (reading for information) to a more personal and aesthetic experience. Readers at Ruff were expected to behave like

readers, thinking and acting (transacting) with their readings for long periods. In retrospect, one might have expected a significantly different outcome with respect to reading achievement (p. 158) as opposed to writing achievement.

Interestingly, Underwood reports that there were significant differences between the two groups in the learning-goal orientation. Underwood contrasts students with a learning-goal orientation with those exhibiting a performance-goal orientation. He clarifies how portfolio assessment strategies emphasize "student ownership, choice, task engagement, and reflective analysis" which contrast sharply with a performance-goal orientation that characterizes students' learning based on purely extrinsic motivational devices related to status and external approval (p. 153). The connection that Underwood establishes is clearly in favor of the use of portfolio assessment practices, yet he believes that these practices might easily fail without administrative consistency in establishing site policies, faculty support, and, of course, funding that supported the hours of extra work taken up by moving beyond the bubble (p.155).

## Scaffolding Graduate Student Portfolio Reflection

In presenting her research on authentic assessment, Mary Robinson provides insights into the thinking of education majors and their beliefs regarding the use of portfolios as an assessment strategy (Robinson, 2000). She presents the need for portfolio assessment in light of the growing popularity of web-based instruction. Robinson argues that portfolio assessment in web-based courses can eliminate some of the doubt surrounding the use of testing as assessment and the potential lack of security that underlies traditional assessment genre. She claims that the authentic nature of

well-constructed portfolio assessment can "... test higher-level skill development such as analysis, synthesis and evaluation" (p. 1). Student artifacts required collaboration that utilized peer suggestions leading to reflection and revision.

Survey results in Robinson's study coupled with observational data showed that students had become "critical evaluators of their work and the work of their peers. They exhibited increased self-reflection and revisited and revised their work to near perfection" (p. 2). Numerical data show that 83% of the students believed that they assess their learning more through portfolio assessment and 77% believed that they reflected on their learning more than they would have using traditional assessment. According to Robinson, the results of her study support the belief that portfolio use as an assessment tool leads to self-reflection and assessment motivation and invokes the use of higher-order thought processes.

The rationale for portfolio assessment of graduate students has a complex connection to the composing process (artifact creation), the self-regulation, and the intrinsic motivation (learning-goal orientation) of graduate students reviewing and refining innovative products. Graduate students are sophisticated learners, but there may be some additional connections to examine in the research on fostering strategies of self-regulation and monitoring in the metacognitive activity of both developmental and sophisticated readers. Palincsar and Brown discuss self-regulation in the context of task performance with a slightly different focus (Palincsar & Brown, 1989). In looking at self-regulated reading strategies, Palincsar and Brown question what it means to be a self-regulated learner. They enumerate strategies that monitor and foster

comprehension including "evaluating content critically for internal consistency and compatibility with prior knowledge and common sense ... using monitoring activities ... and drawing various kinds of inferences and testing them" (p. 20). These are self-regulating strategies that transcend basic comprehension strategies. Palincsar and Brown attribute the effective use of basic comprehension strategies to the success of young learners and poor readers, and they cite the research of Paris and Oka in attaching significance to the development of self-regulation and motivation strategies with successful older and better readers. They summarize in saying, "...effective learners regulate their learning activity by managing, monitoring, and evaluating" (p. 22).

Palincsar and Brown detail the goals that scaffold self-regulation in reading. Effective instructional practice involves (1) teaching strategies for efficient reading, (2) teaching monitoring and evaluating, and (3) fostering motivation to self-regulate. The second instructional goal appears consistent with the process discussed earlier by Albert Bandura demonstrating that the process of self-regulation is clearly reflective, both social and personal, leading to potential behavioral changes. By providing scaffolds to reflection, learners, even sophisticated learners such as can be found in graduate schools, are assisted in the sequence of review, reflection, and revision of the content of portfolio artifacts, and refinement is facilitated. Palincsar and Brown's sequences of managing, monitoring, and evaluating fit nicely with the social cognition theory of self-regulation.

In providing a perspective for teacher portfolio evaluation and revision, Bullock and Hawk define reflection as a process of information or event assessment that leads to enhancements in practices (Bullock & Hawk, 2001). They claim that without reflection, the glue of a portfolio, the portfolio becomes nothing more than a scrapbook (p. 29). The reflections become the voice of the portfolio, bringing a collection of artifacts to a personal level. Bullock and Hawk describe the stages of reflection: description, analysis and planning. To create a better fit with the social cognitive model, Bullock and Hawk's terms might be more inclusive and dynamic as expressions of process: describing, requesting, analyzing, evaluating, and refining. The work of Bullock and Hawk suggests some need for scaffolding of graduate student reflective activities.

Composing and revising, even among relatively sophisticated writers –that is, experienced college writers- leaves much room for task interpretation that may not match with an instructor's purpose. Scaffolding tools are necessary to more closely align the purpose and goals of the perceived assignment, but they may also enhance monitoring and self-regulation mechanisms. John Ackerman argues that college students consider a number of variables in the process of interpreting composition tasks (Ackerman, 1989). He shows that students interpreted a writing task differently than adult judges 67% of the time, but he found that differences could better approximate the design of the assignment through prompts (p. 2) following the first draft. Using a Self-Analysis Checklist (S-AC), Ackerman found in his study of college freshman writers that the representation of a task was an important aspect of composing in that it provided guidance to advanced writers. The Self-Analysis Checklist provided what

appears to be a scaffold for guided reporting which, in representational format, provided evidence of the decisions made by college writers in four sections of freshman writing classes. The Self-Analysis Checklist represented thinking about writing and revising tasks. In his controlled experiment, Ackerman showed that prompting during revision would lead students to produce revisions more closely aligned with the assigned task. The use of the S-AC with a revision assignment to "Interpret with a Purpose" (p. 13) during a lecture on task representation and organizing plans guided student representations of the task. By understanding this, Ackerman finds that the use of the S-AC in close temporal association with the revision assignment provides an effective tool in guiding revision. He cautions that this does not mean that a specific path to a revised product should be taught. Rather, Ackerman suggests that knowing the process provides clarity of purpose and goal.

In Ackerman's findings, there was consistent mismatch in student perceptions of task compared to the perceptions of independent judges. To compare the perceptions of freshman writers with the perceptions of judges on the same assigned task, Ackerman used signal detection analysis of the S-AC representations. The analysis identified occasions where student perceptions either matched or mismatched the judges' perceptions of the assigned task and showed no significant differences between the control and experimental groups. This research demonstrates that the mismatch of perceptions should be considered when building instructional materials. Implied within this suggestion is the caveat that scaffolds, when used, must be carefully created and closely aligned with the identified and perceived task, otherwise confusion persists.

In his concluding comments, Ackerman looks at both the cognitive and social perspectives involved in student representation of tasks. He addresses the importance of monitoring and self-regulation in advanced composers that bring to mind the work of Faigley and Witte referenced earlier and Palincsar and Brown mentioned above as well as the work of Albert Bandura. Importantly, however, Ackerman's work is affirming. "From a social perspective, negotiation of expectations and perceptions can strengthen the collaborative nature of a writing classroom" (p. 14).

Ackerman's research, part of the work of the Reading-to-Write Project that was conducted collaboratively at the Center for the Study of Writing at Carnegie Mellon University and the University of California, Berkeley, connects the essential aspects of composing with reading and the self-regulation and monitoring necessary for effective revision. But while this connection blends well with the social cognitive theory of human behavior, self-regulating and monitoring behaviors are also a function of the reader-writer stance and can be theoretically aligned with the transactional paradigm established by Louise Rosenblatt (Rosenblatt, 1988). Rosenblatt, providing a robust theoretical position for the National Center for the Study of Writing, credits John Dewey and Arthur Bentley with the suggestion of the term transaction to denote the relationship between elements in "mutually-constituted" situations. In situational transactions, there is purposive, pragmatic behavior with consequences that invoke a complex interpretation and response that Rosenblatt links to Charles Peirce's triadic model of sign, object and interpretant. Within this model humans transact with their environment. In applying Peirce's triadic design to language, Rosenblatt visualizes

reading as an event where reader transacts with signs within a context to create meaning. Within a reading transaction, reflecting occurs that engages the reader as meaning is constructed and revised. "A complex, non-linear, self-correcting transaction between reader and text continues –the arousal and fulfillment (or frustration) of expectations, the construction of a growing, often revised, 'meaning'" (p. 4).

Two dynamic, interconnected constructs provide the basis for reader interaction in Transactional Theory. In employing these constructs, the relationship of reader position becomes defined as intensely personal or decisively public. The constructs, the aesthetic stance and the efferent stance, engage the reader in different ways. Adopting an aesthetic stance, the reader would live the reading event in a highly personal psychological manner as the interpreted textual and contextual meaning evokes emotional states within an inner world of empathy acted out below the surface symbols. In contrast, the efferent stance is more informational and public giving the reader knowledge in the form of ideas, directions and information useful in contexts immediate or otherwise. Yet, Rosenblatt wisely maintains the two stances to be interconnected and dynamic, a reader's chosen position along the Efferent / Aesthetic Continuum of interpreted interaction, consistent with the flow of information reflected on over time.

The same transactional assumptions can be applied to the writer. The writer, composing text rather than reading it, actively extracts linguistic meaning from knowledge funds beyond the blank page, and, reviewing, reflecting and revising purposefully interacts with the attributes of an imagined audience. Consider this

Efferent / Aesthetic Continuum when the author revises his / her own work. Under these circumstances, it is not difficult to conceptualize the inner-directed thinking and problem solving explicated by Flower and Hayes' in their cognitive process theory of composing. It is also not difficult to entertain the outer-directed position espoused by Bizzell as a criticism of Flower and Hayes' theory. Not to over simplify the models, but Rosenblatt's metaphor of the Efferent / Aesthetic Continuum serves well to integrate the seemingly disparate theoretical positions. She likens the Efferent / Aesthetic Continuum to an iceberg, the tip of which maintains the public, efferent stance while the hidden mass represents the aesthetic, profoundly personal stance.

The elegant, theoretical constructs of Louise Rosenblatt can be applied in a pragmatic sense to the reflective processing in portfolio artifact review and revision. In scaffolding reflection, the tool must provide an element of purpose that gives the composer material for reflection that enables revision. Echoing Rosenblatt, live ideas emerge from the use of the scaffold tool and synthesis occurs.

Looking at authentic assessment in portfolio activity, Murphy and Underwood provide examples of a successfully integrated, system-wide program within the Pomperaug Regional School District No. 15 in Connecticut (Murphy & Underwood, 2000). What is interesting about this school district's portfolio practice is not just its success with students. Faculty in the district, both teachers and administrators, modeled assessment with their own professional portfolios. "By 1994, a portfolio system for teachers and administrators complemented and supported the portfolio system for students, enhancing the coherence of the educational system as a whole" (p.

146). What the Pomperaug teachers and administrators believe is that effective portfolio use is characterized by ownership, responsibility and collaboration. Supporting these attributes for success are nine consensually determined elements, several of which reference goal setting and reflecting with the first stating "Writing is a foundation for thinking and learning" (p. 144). As well, the portfolio system is supported by scaffolding –check-lists, model benchmarks and committed, self-reflection components. In the secondary portfolio guidelines, for example, the most critical component of the portfolio is the "Concluding self-reflection" (p. 156). It is important to understand that this critically important element is introduced gradually and it is reported that by the fourth grade students deal with it appropriately. In fact, in an example from one fourth-grader, Murphy and Underwood display a reflection piece that approaches an aesthetic stance taken by the writer / reflector in elaborating on her improvements in the use of description. In a letter to her fifth-grade teacher, this student reflects on her growth: "In my story 'The Luck Seed,' I described Maine as a beautiful place with tall mountains and deep blue ocean. Now at the end of my 4th grade year I would have described Maine as a breathtakingly beautiful place with tall thundering gray mountains and deep glistening aquamarine oceans sparkling with beauty" (p. 164).

Applying these portfolio practices with their meaningful attributes of ownership, responsibility and collaboration to the assessment of students and teachers can be a high-stakes evaluation issue. Murphy and Underwood argue that portfolio artifacts including reflection statements provide evidence that can "…trace the path of a student's self-evaluation and to validate it –or not- in relation to the evidence provided"

(p. 167). They characterize portfolio evaluation as a public process that might remind the careful observer of the interactive, public transaction in the efferent stance necessary in the reviewing, reflecting and revising cycles of portfolio production.

## Summary

This review had as its purpose the examination of a tacit understanding amongst educators, particularly those concerned with language and literacy, that composing is informed by reflection. Reflection is both inner-directed, as shown by Flower and Hayes' cognitive process theory of writing, and outer-directed as illustrated by Bandura in the social cognitive theory of human behavior. It is a dynamic process that embraces public (efferent) and private (aesthetic) stances in a personal, social and cultural transaction associated with reading and writing. To say that reflection is practical does not do justice to the complex processing invoked by composers faced with revision tasks, yet, with access to scaffolding, composers are provided with tools that allow them to proceed in a structured, recursive manner toward the goal of refinement. Reflection, as complex as it is, encapsulates learning in representative statements by the composer and traces progress in an authentic, dynamic evaluation of individual knowledge.

## References


Ackerman, J. (1989). Students' self-analysis and judges' perceptions; Where do they agree? (No. 4). Berkeley, CA and Pittsburgh, PA: University of California, Berkeley Carnegie Mellon University.

Anderson, L., & Krathwohl, D. (Eds.). (2001). A taxonomy for learning, teaching, and assessing: A revision of bloom's taxonomy of educational objectives.: Addison Wesley Longman, Inc.

Bandura, A. (1991). Social cognitive theory of self-regulation. Organizational behavior and human dicision processes, 50.

Bizzell, P. (1982). Cognition, convention, and certainty: What we need to know about writing. Pre/Text, 3.

Bullock, A., & Hawk, P. (2001). Developing a teaching portfolio: A guide for preservice and practicing teachers. Upper Saddle River, New Jersey: Merrill Prentice-Hall.

Faigley, L., & Witte, S. (1981). Analyzing revision. College Compositiion and Communication, 32(4).

Florio, S., & Clark, C. (1982). The functions of writing in an elementary classroom. Research in the Teaching of English, 16(2).

Flower, L., & Hayes, J. R. (1981). A cognitive process theory of writing. College Composition and Communication, 32.

Hannah, L., & Michaelis, J. (1977). A comprehensive framework for instructional objectives: A guide to systematic planning and evaluation.: Addison-Wesley Publishing Company.

Hull, G., & Rose, M. (1988). Rethinking remediation: Towards a social/cognitive understanding of problematic reading and writing. Paper presented at the Right to Literacy Conference, Columbus, Ohio.

Jonassen, D. (1994). Technology as cognitive tools: Learners as designers, [Website]. ITForum. Available: http://itech1.coe.uga.edu/itforum/paper1.html [2001, March 2].

Murphy, S., & Underwood, T. (2000). Portfolio practices: Lessons from schools, districts and states. Norwood, Massachusetts: Christopher-Gordon Publishers, Inc.

Palincsar, A. S., & Brown, A. L. (1989). Instruction for self-regulated reading. In L. B. Resnick & L. E. Klopfer (Eds.), Toward the thinking curriculum: Current cognitive research.

Perkins, D. (1993). Teaching for understanding. American Educator: The professional journal of the american Federation of Teachers, 17(3).

Perl, S. (1979). The composing processes of unskilled college writers. Research in the Teaching of English, 13.

Robinson, M. A. (2000). College students' attitudes toward portfolio assessment as an alternative to traditional tests, [Website]. ITForum. Available: http://it.coe.uga.edu/itforum/paper47/paper47.htm [2001, March 2].

Rosenblatt, L. M. (1988). Writing and reading: The transactional theory (No. 13). Berkeley, CA and Pittsburgh, PA: University of California, Berkeley
Carnegie Mellon University.

Sperling, M., & Freedman, S. (1987). A good girl writes like a good girl: Written response and clues to the teaching / learning process.

Underwood, T. (1998). The consequences of portfolio assessment: A case study. Educational Assessment, 5.