

Chapter 2

Relevant Literature

Portfolios

Portfolio, derived from the Latin words meaning “to carry and leaf”, referred to a case used to carry paper or drawings (Perry, 1993). This concept was further expanded to include collections of like items such as an artist’s portfolio or a stock portfolio. The concept now evokes images of artists or architects with samples of their talent, professionally photographed and neatly packed in large black cases. Professional portfolios contain representative pieces of an artists’ work which are generally diverse and represent the best things they have created, in the artist’s judgment. Pieces within a portfolio are not permanent but are changed as the purpose for the portfolio changes. In addition to people in the fine arts, doctors, architects, airline pilots and military personnel often present their credentials via a portfolio (Bird, 1990). Recently, this concept has been further expanded into the realm of assessment in education (Boyle, 1994) and many teachers are now using portfolios to assess the learning occurring in their classrooms.

The portfolios used in schools are similar in form and function to those used in other professions. They may be identified in the professional educational literature by such terms as “alternative”, “authentic”, “dynamic” or “performance assessment tools.” Student portfolios also contain items that represent exemplary work and evolve as the student learns new concepts. However, school portfolios, while having similarities to those used by various professionals, have unique features and functions quite different from their predecessors.

What Is Portfolio Assessment In Schools?

Portfolio assessment is a student-centered, process-oriented approach to assessment that provides a longitudinal view of learning (Valeri-Gold, Olson, & Deming, 1992). Portfolios are not merely scrapbooks containing items a student has completed during an allotted time period. They differ from scrapbooks in that they have a defined purpose and may differ in two dimensions; one is a use and other is a goal. Use describes how the portfolio will be utilized (e.g., Collins, 1992; Paulson, Paulson & Meyer, 1991). Use refers to the purpose articulated to the creators of the

portfolios. Will the portfolio assist the teacher in assigning a grade? Will the portfolio be used to help a student obtain advanced standing in college?

The goal describes what knowledge and skills are evidenced by items included in the portfolio (e.g., Collins, 1992; Paulson, Paulson & Meyer, 1991). This list of criteria is established prior to portfolio implementation and is shared with the students when the concept of portfolio development is presented to them. The list includes any items designated for inclusion by the teacher and also describes the specifications of items that are to be selected and included by the student. Other criteria might include the type of container used to present the portfolio, where the portfolios will be stored and directions for writing of any reflections designated by the teacher.

Rubrics are often used for the purpose of portfolio evaluation. Jasmine (1993) defines a rubric as stated criteria on an articulated scale enabling an evaluator, usually the teacher, to differentiate among a group of students' samples.

A Brief History of Portfolio Assessment Use In Education

Isolated documented cases of portfolio assessment can be found in the literature as early as the 1940's. The Holtville School in Alabama had one such established portfolio system. Students were required to maintain folders of their work and at the end of each six weeks, students and teachers both wrote evaluations of the work contained in these files. The portfolios, complete with evaluations, were then shared with the students' peers and parents. Parents were also encouraged to add their comments to the folder (Lauderdale, 1981).

With the changes in education and assessment systems occurring after World War II, the call for more standardized measures of achievement caused changes in Alabama, as a state, and Holtville, as a school. The election of a conservative state school superintendent also caused changes at Holtville. In the early 1950s, Holtville School abandoned this innovative assessment project and reverted to a more traditional method of assessment (Lauderdale, 1981).

Although reports of sporadic usages can be found earlier, portfolios gained broader acceptance in classrooms in the early 1980s when they were first used in classrooms in which the writing process was being taught to students. Portfolio usage in these language arts classrooms evolved naturally as an outgrowth of writing folders (Cole, 1994). Kirby and Liner (1988) discussed using folders as storage containers and organizational aids. Educators accustomed to using folders for storage of students' work began including written comments in the folders that outlined the students' achievement (Rynkofs, 1988) and these folders soon evolved into analytical tools (Carter, 1992). By the mid to late 1980s, educators at the primary level (e.g., Deen, 1993; Green, 1993; Milliken, 1992; Voss, 1992), secondary level (e.g., Dellinger, 1993; Juska, 1993; Reif, 1992; West, 1993), and college level (e.g., Elbow & Belanoff, 1991; Hain, 1991; Rosenberg, 1991, Smit, Kolonsky, & Seltzer, 1991; Valeri-Gold et al. 1991/92) had begun using portfolios as an alternative form of assessment.

Concurrently, many of the national education reform movements advocated the use of portfolios in various subjects. The National Research Council (1996) called for more authentic assessment instruments and cited portfolios as such a tool for assessment in science. The National Council of Teachers of Mathematics (1989) had a similar statement in their National Standards Document. The International Reading Association/National Council of Teachers of English (1994) and the National Council for the Social Studies (1994) also advocated portfolios as a means of student assessment.

Structure of a Portfolio: A Question of Evidence

When considering the structure of a portfolio, the two issues which need to be addressed are: 1) what types of evidence are possible and 2) what will count as evidence.

Classes of evidence.

For science teachers, four general classes of evidence - artifacts, reproductions, attestations, and productions - are most often included in a portfolio (Collins, 1991). Artifacts are items that may include a written lab report, a test, or a collection of newspaper clippings. Reproductions provide documentation of the events surrounding the person creating the portfolio and the portfolio development process. An example of a

reproduction is a photograph of a bulletin board created around the goal of the portfolio. Another example is a videotape of students creating a simple machine out of recycled plastics in a physics class. Attestations are documents (not necessarily paper) prepared by someone other than the creator of the portfolio. A letter written by the mayor of a city commending a class for their efforts in an environmental clean up day would be an example of an attestation.

The final class of evidence is productions which are documents prepared especially for the portfolio. Goal statements, reflections, and captions are three different kinds of productions. An individual goal statement is provided by the student creating the portfolio and generally focuses on the process of portfolio development. The reflective statement is composed by the portfolio organizer and is written as the portfolio is being completed and prepared for evaluation.

The most important of all productions, however, is the caption. Captions are attached to each document and are used to describe each piece, why it is evidence and what it is evidence of (Collins, 1991). Captions transform documents into evidence. In order to create a caption, the organizer must first formulate her thoughts and then articulate them into the caption.

Captions are very important for the person evaluating the portfolio since they import meaning and distinguish a portfolio from a mere collection of materials. The importance of captions can be illustrated by the following example. A student may include a science related cartoon in his portfolio, but without a caption, the cartoon itself doesn't tell the evaluator much about the student. However, an appropriately worded caption can demonstrate to the evaluator that the student has grasped the cartoon's content.

What will count as evidence.

Determining which items will count as evidence is essential for portfolio development. This issue raises three questions that are paramount in the portfolio development process:

- 1) Who will be responsible for making the decisions about what to include (Valeri-Gold et al. 1991/92)?

- 2) how much evidence should be included (Haertel 1991)? and
- 3) how should the evidence be organized (Collins, 1992)?

Who makes portfolio decisions?

Who decides what kinds of evidence are included in the portfolio? Sometimes this decision is made by the instructor and sometimes it is made by the student creator (Valeri-Gold et al. 1991/92). Younger students, perhaps early elementary grades, often need more guidance than older students. Younger students may need help deciding what pieces of evidence to include in their portfolios and teachers may give younger students less choices for item inclusion. Older students, including upper elementary, middle school and high school students, can make the inclusion determination with less assistance from the teacher. Always, some items in the portfolio are instructor-designated while others are left up to the discretion of the student. This is done to allow both the student and teacher to play an active role in the assessment process.

How Much Evidence Should Be Included?

The answer to the question about the amount of evidence to include is simply . . . enough to document the progress. One document does not make a portfolio and each possible document creates a file. Haertel (1991) suggests that each new item being considered for inclusion be evaluated using the following question: “What will be added to the portfolio if I include this piece of evidence”? If a definitive positive answer is reached then the item is included in the final product.

How Will The Portfolio Be Organized?

The question here is how will the types of evidence be organized so that the creator’s skills and knowledge are displayed. Some options for organization include: chronological, thematic, and class of evidence (Collins, 1992). If a portfolio is organized chronologically it displays growth over a distinct time period while thematically-organized portfolios include items that have a distinct common thread (Collins,1992). Elementary school teachers may have thematically-organized portfolios that include math, science and writing activities that revolve around a specific unit. And finally, portfolios organized by class of evidence would have separate

distinct sections for each type of evidence i.e., artifacts, reproductions, attestations, and productions (Collins,1992).

Reflection

Evidence in the portfolio only tells parts of the story because reflections and self-evaluations are equally important in portfolio assessment. Graham (1993) states that reflection provides opportunities to critically examine the experiences and products of the portfolio. Vavarus (1990) suggests that at various times during the year teachers should ask students to study their portfolios. She suggests that the focus for this study may be a single piece of evidence, a series of revisions, two samples that demonstrate growth or even the entire collection. She also offers the following questions that students may answer as they reflect on their portfolio content:

- What did I like most about this work?
- What was important to me when I wrote it?
- If I revised this, what would I change?
- How is it like other pieces of my work?
- Is it my best sample? (p.52)

Questions such as these stimulate thinking and encourage students to reflect on their work, evaluate their progress, and set future learning goals (Buschman, 1993; Camp & Levine, 1991; Smith, 1993; Tierney, 1992; Wolf, 1987/88; Yancey, 1992). Once students have answered the questions their responses become a part of the portfolio (Vavarus,1990). As teachers realize their students capabilities of reflection, they realize also that they themselves do not have to be the sole evaluators (Reif, 1992). Evaluation becomes something in which both the student and the teacher are actively involved. Reflection also enables teachers to plan and direct future activities with foresight (Goodman, 1991).

Portfolio Conferences

Student/teacher conferences should be an integral part of portfolio assessment. Graves (1976) explicates the purpose of a conference by stating that during this time the teacher is eliciting information from the student rather than issuing directives about errors on work included in the portfolio. Goal setting by the students is an important part of the conferencing process. Calkins (1983;1986) and Fu (1992) both suggest that

students often set standards in conferences for evaluating themselves as learners and for setting goals that are different from their teachers'. Many researchers (i.e., Calkins, 1983, 1986, 1991; Graves, 1983; Milliken, 1992; Russell, 1983; Smith, 1992; Walker & Elias, 1987) suggest that conferences encourage and teach students to reflect critically on their written work. Reports from these same researchers reveal the importance of conversation in the conferencing process. Some researchers suggest that both teachers and students are learners during the process (Graves, 1979, 1983; Sperling, 1990; Tobin, 1990; Walker & Elias, 1987). Thus, conferences provide students the opportunity to actively participate in their own learning and give teachers an insight into the child as a learner.