ED 334 251   TM 016 835

AUTHOR   Paulson, F. Leon; Paulson, Pearl R.
TITLE   The Making of a Portfolio.
PUB DATE   Feb 91
NOTE   11p.
PUB TYPE   Reports - Evaluative/Feasibility (142)

EDRS PRICE   MF01/PC01 Plus Postage.
DESCRIPTORS   Academic Achievement; Educational Assessment;
                Elementary Secondary Education; *Evaluation Methods;
                Learning Processes; *Material Development; *Models;
                *Portfolios (Background Materials); *Student
                Evaluation
IDENTIFIERS   *Cognitive Model for Assessing Portfolios;
                *Performance Based Evaluation; Stakeholder
                Evaluation

ABSTRACT
                A framework is suggested for presenting a student
portfolio in a coherent fashion. The Cognitive Model for Assessing
Portfolios (CMAP) is an organizer that arranges the processes
associated with portfolios into the following three dimensions: (1)
the stakeholder dimension, which identifies the viewpoints of
individuals or groups with an interest in the portfolio; (2) the
activity dimension, which describes the actual process involved in
building a purposeful, interrelated collection of student work; and
(3) the historical dimension, which is sensitive to changes over
time. The CMAP interrelates the processes of assembling a portfolio,
but gives little guidance about the specific contents. Stakeholders
must make these decisions in accordance with the stated rationale and
issues to be examined. The activity dimension of the CMAP contains an
evaluation component that requires stakeholders to examine the
portfolio and make judgments about its contents. Portfolios
illustrate educational outcomes in relation to conditions that affect
learning. Using the CMAP model, teachers, students, and others can
enhance the process of developing the portfolio. Three figures are
included. (SLD)

THE MAKING OF A PORTFOLIO

by

F. Leon Paulson and Pearl R. Paulson[1]

February 1991

A portfolio is a purposeful, interrelated collection of student work that exhibits the student's efforts, progress, and achievements in one or more areas. The collection includes student participation in selecting contents, the criteria for selection, the criteria for judging merit, and evidence of student self-reflection. The portfolio communicates what is learned and why it is important.[2]

"What should I put into the portfolios?" Teachers who ask this are looking for a list of *things* that will produce a portfolio. We would ask instead, *"How* do you decide what goes into a portfolio?" To us, a portfolio is more process than product. The things that find their way into a portfolio get there because students and teachers, working and thinking together, decide to put them there

In our view, a portfolio is a carefully crafted portrait of what someone knows or can do. It becomes a focal point for the student, teacher, parents, outside evaluators, and others. It is simultaneously a personal and a public statement.

The role of the students as portfolio owners, creators, and reviewers is our central concern. Through building a portfolio, students have the opportunity to learn -- to learn about a subject, to learn about learning, and learn about themselves. The key issue is the process involved in creating a portfolio, not than the products found in the portfolio.

---

1. These teachers provided the portfolio examples: O.J. Biber, Sherie Crowell, Nikki Elliot, Darlene Frazier, Linda Lewis, Ronda Woodruff.

2. Our definition is an expansion of the one developed by the Northwest Evaluation Association (see Paulson, Paulson, & Meyer, 1991).

The Cognitive Model for Assessing Portfolios (CMAP)[3] is a framework for presenting the portfolio in a coherent fashion. It is an organizer, a theory around which activities and portfolio contents can be organized and presented.

CMAP arranges the processes associated with portfolios in three categories. We think of these three dimensions on a kind of topographical map.

o   The *stakeholder* dimension identifies viewpoints of various individuals or groups who have an interest in the portfolio. The student is central or primary stakeholder. Secondary stakeholders may be teachers, parents, assessment specialists, and others. These groups may play a positive, supporting role or they may have a negative impact on the process.

o   The *activity* dimension describes the actual processes involved in building a purposeful, interelated collection of student work. These processes include stating the rationale for the portfolio, deciding on specific issues to be treated, collecting the things that comprise the portfolio itself, and interpreting the results.

o   The *historical* dimension is sensitive to changes over time. It looks as conditions at the outset (antecedents), what activities occur during the time the portfolio is assembled (transactions), and what happens as a result (outcomes). Any or all processes on the stakeholder and activity dimensions have a historical perspective.

Figure 1 is 3-dimentional representation of CMAP which *interelates* the processes of assembling a portfolio. Each dimension functions in concert with the remaining dimensions. When one considers, for example, the reason for creating a portfolio, CMAP reminds us that each stakeholder may hold a somewhat different rationale and that those rationales may may change over time.

Stakeholders

A portfolio is a purposeful collection of student work. The stakeholder dimension answers the question, *whose* purpose. Is the purpose for having a portfolio determined by the primary stakeholder (the student) or a secondary one (the teacher or even a committee of teachers)? If the purpose is set by secondary stakeholders, what is the effect on the primary stakeholder? What happens to ownership?

---

3. CMAP is patterned after Robert Stake's (1967) program assessment model. We introduced an early version of the model in a theoretical paper "How do portfolios measure up: The Cognitive Model for Assessing Portfolios" (Paulson & Paulson, 1990).
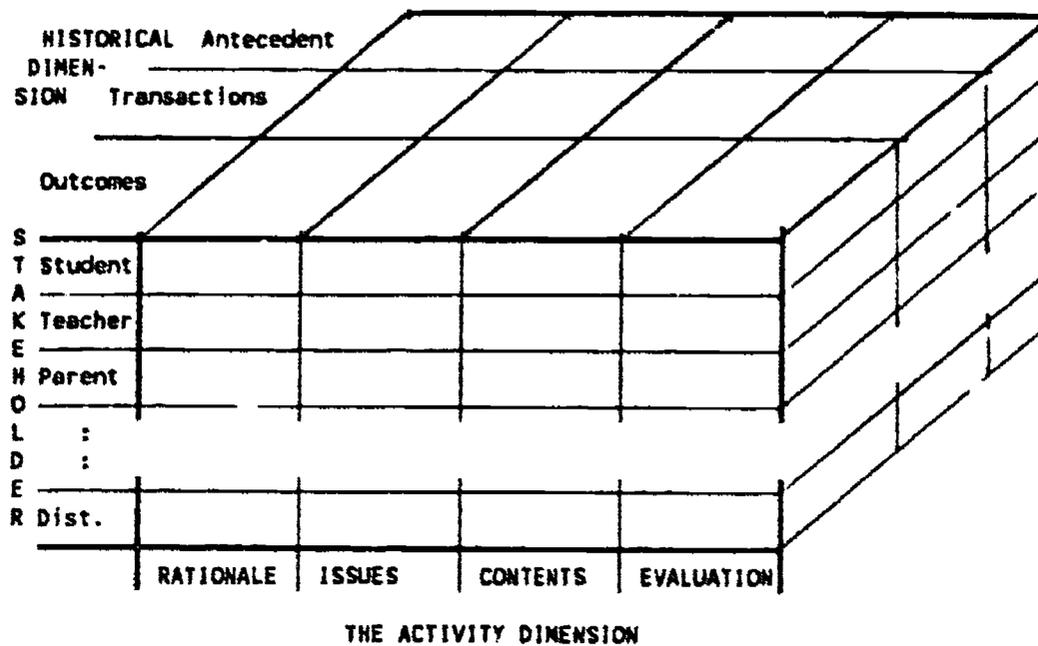
3

Figure 1: The cognitive model for assessing portfolios showing the activity, historical, and stakeholder dimensions.

A stakeholder[4] is one who feels personal involvement in the evaluation. In portfolio assessment, a student may feel proud or at-risk when someone reviews the portfolio. The teacher reviewing the portfolio may feel satisfaction or disappointment about what is observed, and at-risk when a supervisor reviews the same portfolio. Add parents and district evaluators to this mix and the web becomes very complex indeed. With CMAP, different stakeholders provide each other with information on their interests, and attempts to negotiate consensus. CMAP supports compromise and the development of consensus by having all stakeholders explain their interest and document their concerns and work together to interpret and understand the portfolio.

While there are many differences among stakeholders, the distinction between *primary* and *secondary* stakeholders is fundamental. The primary stakeholder is the individual who assembles, and therefore owns, the portfolio. Secondary stakeholders are all others who have some kind of interest in the portfolio. Certainly a portfolio developed by a student should address concerns held by the teacher who is, after all, the instructional leader. But the student as primary stakeholder has a personal stake in the portfolio that makes the portfolio unique. The portfolio of a student planing to study electrical engineering would probably differ from a portfolio of a student who plans to sell computers. Student portfolios will have similarities reflecting the influence of the teacher stakeholder, and dissimilarities reflecting the individual as stakeholder.

Specifying a portfolio program in which student is the primary stakeholder reflects our philosophical bias. We think education should produce independent learners who take charge of their own learning, that is to become primary stakeholders in their learning. One learns better by doing than following. There are ways to do it, for example, the portfolio program described

---

4. The stakeholder is explored by Guba and Lincoln (1989) as part of what they call <u>fourth generation evaluation</u>.

4

by Vavrus[6] in which the teacher assumes the role of primary stakeholder and the student becomes a participating, secondary stakeholder. Our point here is not to debate the relative merits of different approaches, but to point out that the stakeholder dimension brings these differences into focus.

The stakeholder dimension, then, looks at *who*. Who owns the portfolio? Who are the primary and secondary stakeholders and what kinds of impact does each have? We are now ready to look at the creating the portfolio itself. We address these activities mindful of the interests of both primary and secondary stakeholders, and with the conviction that teachers can encourage students to take charge of their own portfolios -- and their own learning.

Activities

The activity dimension asks *what*, *where*, and *why*. What goes into the portfolio, where does it go, and why put it there at all? The process of putting together a portfolio falls into four activities;

o   stating the rationale for having a portfolio;

o   deciding on the specific issues including areas of instructional emphasis and the standards used to judge success;

o   selecting contents to be placed into the portfolio; and

o   reviewing and making judgments about the contents in relation to the issues.

A summary of the activity dimension appears in Figure 2.

THE ACTIVITY DIMENSION

RATIONALE	ISSUES		CONTENTS		EVALUATION	
	Intents	Standards	Context	Exhibits	Review	Judgment
The reason for creating a portfolio	Goals of the portfolio	Perform-ance standards held	Info-mation about student a program	Student products in the portfolio	Descri-ptions Measure-ments	Overall, examined conclus-ions

Figure 2: The activity dimension of the cognitive model for assessing portfolios.

5. See Vavrus, 1990.

The Rationale: Focusing the Portfolio.

The rationale is the reason for building the portfolio. It defines the curricular scope of what will be included, the area or areas of interest. It sets forth the general limits on which content areas may (or may not) find their way into a portfolio. The rationale is a reminder, a guidepost for student, teacher, and other stakeholders.

The rationale is a straight-forward statement. Its form is dictated by the viewpoint of the stakeholder. To illustrate, the following rationales were written by a fourth grade student and teacher in a class of high-risk, inner-city students:

Student	I keep my portfolio because I want to show the principal and my mom. For my best work. To look at when I grow up and to show my kids.
Teacher	I would like students to have a collection o what they consider their best work from which they will assess their own learning.

There are similarities here, and differences. Both imply the portfolio will contain best work. The teacher's statement makes it clear that the process of learning to select best work is at least as important as the work itself.

Identifying Issues

Issues are specific areas of concern represented in the portfolio. They are closely tied to the interests of the stakeholders and cover things usually called "goals," "objectives," or "targets." We divide issues into two categories; stating *intents* and developing *standards*. Together, intents and standards help the student decide which materials should be placed in the portfolio. Intents help the student decide which materials are relevant; standards help the student decide which materials are worthy.

As the contrast in these statements by two teachers talking about the way they use portfolios in their classes, intents may be stated in concrete or abstract terms:

Teacher 1	To motivate students and get them excited about their learning.
	To foster a sense of pride in their work.
	To encourage self-reflection and goal-setting.
Teacher 2	I want to increase scores on the Analytical Writing Assessment.
	I want students to judge their own writing using the Analytical Writing Assessment.
	I want students to analyze their own writing, pointing out strengths and areas for improvement in a conference setting.

Standards couple naturally with intentions, providing a guide for the instruction and a basis for judging whether or not the intent has been successfully addressed. Standards describe

examples of performance that becomes a benchmark against which students and teacher make judgements[6]. This in a excerpt from an analytic writing assessment scoring rubric that describes a standard for judging 'voice' in writing, a characteristic though by many to be an important aspect of good writing[7].

The writer seems to speak right to the reader, and care about getting his or her ideas across.

Paper may show originality, liveliness, excitement, or suspense.

The following is from a portfolio in which a high school student reflects on voice. Notice how his comments zero in on the way he translates the standards as he develops his craft.

One of the goals I set for myself and didn't reach is finding a voice, a way of writing that is comfortable for me and doesn't sound silly and unreal to others. I think I'm going to have to experiment a little (or lots) more before I find it. I like to keep a sense of humor in all my pieces -- a person, or place, or event that is a little off the wall. Sometimes I think I take it a little far: it doesn't always work. But I keep trying anyway.

Choosing the Contents of the Portfolio

CMAP provides little guidance about what specific contents should go into a portfolio. Stakeholders, especially the primary stakeholder, decide what goes in the portfolio. They make these decisions in accordance with the stated rationale and issues. To a person leafing through a portfolio that follows the CMAP model, there would be significant diversity from portfolio to portfolio. Students may address similar issues but address them in very different ways. Yet, there would be similarities as well. All contents would be dated, indexed to issues, and contain information that explains why they are included in the portfolio.

Contents fall into two categories; *exhibits* are the student work, *context* is everything else.

o   Exhibits are the authentic data related directly to issues. They can include a large variety of things; classroom assignments, finished or rough drafts, work students developed especially for their portfolios, self-reflections specific to issues, and so on. While we encourage flexibility in what is selected, each exhibit must address identified issues in a way that is clear to anyone reviewing the portfolio.

o   Context is anything that puts the exhibits into perspective and add clarification. It is any material that helps describes and interprets the exhibits. Students' interpretations and reflections and teacher observations and notes often fall into this category. Context information such as test scores should be included only if it contributes to the way the student uses the portfolio. If they serve no unction, test score and the like are best stored in the student's cummulative records.

---

6. See Grant Wiggins (1991, February) for a discussion of standards.

7. From Beaverton School District's Analytical trait writing scoring rubric.

Evaluating the Portfolio.

Portfolios involve evaluation in a comprehensive sense. It permeates all levels of the portfolio process. Students set the stage for evaluation when they collaborate with other stakeholders to describe the rationale, issues, and set standards. They develop their capacities to evaluate as they review and judge the quality of the work in their portfolios. It is the component of the activity dimension that may have the most profound impact on learning in the long term. It provides a context in which diverse elements can be integrated, the key that makes massive files of authentic student work meaningful to the stakeholders.

CMAP creates a context that requires the stakeholders, singly or in combination, to examine the portfolio in context and make informed judgments. Thus, portfolio assessment is more that data analysis, it is a process that involves *disciplined inquiry*[8] in which the the stakeholders review materials in context to make informed judgments.

The evaluation component of the activity dimension may be divided two parts, review and judgment.

o   Review is the analytic portion of the activity, a careful consideration of the pieces that appearing in the portfolio. Has each intent been addressed? To what degree have standards been approached, met, or exceeded?

Here a 1st grader observes changes in his writing over the year:

[At first] I drew a picture. Now I write a whole page. At the first of the year I wrote letters. But now I can write big words.

---

o   Judgment refers to making conclusions about the portfolio as a whole. It is a careful look at how the purposeful pieces that comprise the portfolio interrelate to provide a comprehensive portrait. Have all intents been addressed? Does a comprehensive picture emerge?

This 11th grader made these overall conclusions about the several exhibits she chose for her portfolio:

I chose these three pieces because they are characteristically different. They each reflect a different mood and style. In my opinion, my strengths as a writer are vocabulary and sentence structure....

Stakeholders play an important role in evaluation. Each stakeholder can look at portfolio contents in relation to their own rationale and issues. They can make inferences about the nature and quality of the learning that has taken place, both in specific areas of review or in judging the overall picture. The student as primary stakeholder has a major role in the activities that surround evaluation. As learners reflect on their learning and assess themselves as learners, they develop facility in using higher order thinking and metacognitive skills.

---

8. See Cronbach & Suppes, 1969.

8

THE ACTIVITY DIMENSION

		RATIONALE	ISSUES		CONTENTS		EVALUATION	
			Intents	Standards	Context	Exhibits	Review	Judgment
S	Student							
T								
A	Teacher							
K								
E	Parent							
H								
O	:							
L	:							
D								
E								
R	Dist.							

Figure 3: The activity and stakeholder planes cf the cognitive model for assessing portfolios

Secondary stakeholders evaluate the portfolio's content in much the same way. Figure 3 shows the activity dimension crossed with the stakeholder dimension. Each stakeholder reviews the specific contents of the portfolio in relation to a personal set of intents and standards, and judges the portfolio according to a personal rationale and set of issues. Stakekholders do not operate in isolation. They talk about what has been learned and why it is important. This communication among stakeholders may be the single most powerful contribution of portfolios to education. It is the link between isolated activities in the classroom and the overall goals for an educational program. As the stakeholders become aware of each others' rationale, issues, and evaluative concerns, they clarify issues and move toward agreement, compromise, or clear distinctions.

The Portfolio as Historical Record

CMAP's stakeholder dimension looks at *who*. Its activity dimension looks at *what, where, why*. Its historical dimension places the portfolio into temporal perspective by looking at *when*, allowing us to track growth and change. There are three components: Antecedents conditions at the beginning of the portfolio's development), Transactions (events that occurred during its development), Outcomes (conditions at the end).

Antecedents refer to baseline performance of the student and stakeholder characteristics at the outset. They define the starting points and set the stage for the judgments that will be made about growth. This plaintive statement from a fifth grade learning disabled student's portfolio identifies an issue and states a goal, reflecting them against a perceived antecedent condition.

9

Pre-publication draft.

My writing is like crap as you can see. My aspect is to be able to write better than I do.

Transactions are the countless encounters that occur around the portfolio itself. They are any instruction, experience or exposure that brings about change. Transactions include encounters between the student and other stakeholders. They are knowledge as verb; the "knowing", the "doing", the "constructing", the "understanding". In CMAP, transactions account for the differences between antecedents and outcomes. They may be more interesting than outcomes for some educators, particularly those interested in learning and knowing as processes, not just in what has been learned or what is known. A fifth grade teacher describes transactional activities, clearly stating the standards used to judge the progress:

Students learn how to assess writing to these traits, recognizing that a paper may be mechanically sound but weak in ideas, or perhaps strong in organisation but rather weak in vocabulary. Students also receive instruction on how to revise papers using these traits [a six-trait analytic writing assessment rubric]. They learn how to make weak papers strong. These six traits are my six writing units for the year.

Outcomes, traditionally, have been the major interest of educational assessment. While outcomes remain important, the portfolio presents them in balance with the rest of the educational program in a way few other evaluative techniques can. Portfolios illustrate outcomes, not just for their own merit, but in relation to antecedent and other conditions that affect the learning. Earlier, we reproduced an issues statement from a teacher that read "To foster a sense of pride in their work." Here is an outcome statement from the same teacher reflecting on the work observed in her student's portfolios.

As you can see by reading the comment cards students have attached to their selections (the exhibits), each child is proud of what they have done. Also, nearly every child's portfolio rationale expressed pride and a desire to show off their work to their family. This is a blessing to me, because the children are building self-esteem as they are building their portfolios.

Conclusion

We started with the question "What should go into portfolios?" We answer this question by saying that no two portfolios will be alike, therefore it is impossible to produce a definitive list of contents. We propose, instead, a way to think about the question and to arrive at appropriate answers. CMAP supplies a context in which students, teachers, and others can work together to enhance the process of developing the portfolio.

References

Beaverton School District (1986). *Analytical trait writing: Student copy.* Beaverton OR: Beaverton School District 48J.

Cronbach, L.J., & Suppes, P. (1969). *Research for tomorrow's schools: Disciplined inquiry in education.* New York: Macmillan.

Guba, E. G. & Lincoln, E. S. (1989). *Fourth generation evaluation.* Newbury Park, CA. Sage.

Paulson, F. L. & Paulson, P. R. (1990) How do Portfolios Measure Up: A Cognitive Model for Assessing Portfolios. Paper read at conference "Aggregating Portfolio Data" held by the Northwest Evaluation Association, Union WA, August. (ERIC Document Reproduction Service No. TM 015 516)

Paulson, F. L., Paulson, P. R., & Meyer, C. A. (1991, February). What makes a portfolio a portfolio? *Educational Leadership,* 46 (5), 60-63.

Stake, Robert (1967). The countenance of educational evaluation. *Teachers College Record. 68 (7).* 523-540.

Vavrus, Linda (1990, August). Put portfolios to the test. *Instructor,* 48-53.

Wiggins, Grant (1991, February). Standards, not standardization: Evoking quality student work. *Educational Leadership,* 46 (5), 18-25.