The state of the art in using student portfolios in the schools is summarized, based on an annotated bibliography of over 50 articles produced by the Northwest Regional Educational Laboratory (NREL). This set of materials is an addendum to a previously developed workshop series designed to assist educators in developing their own curriculum-referenced tests. Although there are some disagreements about what a portfolio should be, the NREL has concluded that a portfolio must be a purposeful collection of student work that exhibits a student's progress in a given area or areas while including: (1) student participation in selection of the portfolio content; (2) the criteria for selection; (3) the criteria for judging merit; and (4) evidence of student self-reflection. Examples were derived from the areas of writing and integrated language arts, where most of the work with portfolios has been. Issues in using portfolios are discussed, with emphasis on: purposes, curriculum and instruction, content, assessment, management and logistics, and staff development. Appendix 1 gives examples of four students' written self-reflections. Appendix 2 is a 68-item annotated bibliography of portfolio articles that were prepared by the NREL. (SLD)
Using Portfolios in Instruction and Assessment

November 1990

Northwest Regional Educational Laboratory
101 S.W. Main Street, Suite 500
Portland, Oregon 97204

Judith A. Arter

Office of Educational Research and Improvement
U.S. Department of Education
Using Portfolios in Instruction and Assessment

Judith A. Arter

Test Center
Northwest Regional Educational Laboratory
101 S.W. Main Street, Suite 500
Portland, Oregon 97204
(503) 275-9500

November 1990
INTRODUCTION

This set of materials is an addendum to a previously developed workshop series designed to assist educators to develop their own curriculum-referenced tests. The original series was published in two parts: *Curriculum-Referenced Test Development Workshop Series, Workshops One Through Three, NWREL 1988*; and *Curriculum-Referenced Test Development Workshop Series, Workshops Four And Five, NWREL 1989*.

The workshop series was developed because of a felt need for districts to have a less expensive test development alternative. Although many of the concepts presented in the workshop series can be used for informal, daily classroom assessment, the main focus is the development of more formal assessment systems -- unit, year or course-end tests; or, perhaps diagnostic systems.

The entire workshop series is designed to occur over the period of a year or more. Each workshop presents information and practice on one step of the test development process -- developing test specifications, developing item pools, pilot testing, and finalizing testing materials. Participants then finish that step before the next workshop. At the end of the series participants have one or more instruments pilot-tested and ready to use.

In using these training materials to develop assessment devices with educators, we discovered that many choose objective formats because they are easiest to develop, give and score: and because they feel they have more experience with those formats. The current addendum was developed as part of an effort to broaden assessment options and promote consideration of "alternative assessment" approaches. Specifically, it is an annotated bibliography and overview summary article on using portfolios in assessment and instruction.

This supplementary piece might be most appropriately used with workshops two and three of the series -- developing test specifications and developing item pools.
# TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Overview</td>
<td>1</td>
</tr>
<tr>
<td>Definition of Portfolio</td>
<td>1</td>
</tr>
<tr>
<td>Content</td>
<td>2</td>
</tr>
<tr>
<td>Self-Reflection/Self-Evaluation</td>
<td>4</td>
</tr>
<tr>
<td>Issues In Using Portfolios For Assessment</td>
<td>5</td>
</tr>
<tr>
<td>Bibliography</td>
<td>7</td>
</tr>
<tr>
<td>Appendix 1: Examples Of Student Self-Reflection</td>
<td>8</td>
</tr>
<tr>
<td>Appendix 2: Annotated Bibliography Of Portfolio Articles</td>
<td>14</td>
</tr>
</tbody>
</table>
USING PORTFOLIOS IN INSTRUCTION AND ASSESSMENT

State Of The Art Summary
Judy Arter, NWREL, 503-275-9562
September, 1990

Overview
As part of the mission of the Northwest Regional Educational Laboratory, and as part of a cooperative effort on portfolios coordinated by NWEA, the Test Center has produced an annotated bibliography of over 50 articles and papers on the use of portfolios in the schools. This short paper summarizes the state of the art in using portfolios as reflected in these papers. Most work appears to have been in the area of writing and integrated language arts. Therefore, most of our examples come from these areas. However, portfolios in other subject areas such as math and science are being explored.

Definition of Portfolio
Using portfolios for instruction and assessment has become a popular buzz word. Unfortunately, it is not always clear exactly what is meant. There seems to be some consensus on the fact that a portfolio is more than just a folder of student work. Portfolios need to be a sample of student work assembled for a particular purpose; and the content assembled might differ depending on the purpose and audience.

For example, if the student is to be evaluated on the basis of the work in the portfolio, then he or she would probably choose the final version of what he or she considers his or her best work. If the purpose is to show growth over time, then representative (or best) work would be included at several points in time. Or, if the portfolio is to be used to see how students go about doing a project, a complete record of all activities, drafts, revisions, etc. might be kept.

An additional confusion is that some teachers feel that portfolios should not be used for assessment. Rather, the purpose is a "celebration" of what has been accomplished. Students would have strict control over the portfolio and would probably include what they feel most attached to. An additional purpose might be instructional. In this case teachers might request students to include all drafts in the portfolio. Thus, although most educators would agree that a portfolio is a purposeful sample of student work, not everyone would agree what the purposes are.

In many people's minds, an additional requirement for a folder to be a "portfolio" is that it include some sort of self-reflection or self-evaluation. Some ideas for this are provided below.

Finally, people generally feel that the student should have some degree of control over what is selected for the portfolio. Selection could be totally controlled by the student or be in collaboration with the teacher or others. This ties back to the self-reflective nature of portfolios, and the feeling that the portfolio will only have meaning for the student if they feel ownership for it.

To summarize, a good, working definition for a portfolio appears to be that developed at the NWEA working retreat on aggregating portfolio data in August, 1990:
A portfolio is a purposeful collection of student work that exhibits to the student (and/or others) the student's efforts, progress or achievement in (a) given area(s). This collection must include:

- student participation in selection of portfolio content;
- the criteria for selection;
- the criteria for judging merit; and
- evidence of student self-reflection.

Content

There is less agreement on what could or should be included in a portfolio, mainly because suggested content depends so heavily on purpose. Because this is so, we will just present a summary of several portfolio systems currently being tried in a number of locations. These appear to fall into two categories:

1. "Indicator systems" in which a list of items is required to be collected on all students. Such lists include things like attitude surveys, number of books read, writing samples, norm-referenced test scores and teacher checklists.

2. Work sample systems which rely very heavily on on-going classroom work that is selected and analyzed by students and/or teachers.

**Grade 1 Integrated Language Arts Portfolio, Juneau, Alaska** (1). The teachers in Juneau wanted a better way to show student growth than standardized tests. The district worked with the teachers to develop a portfolio system that contains a number of "indicators" of student growth. Indicators were wanted that covered both achievement and attitudes; and that covered all aspects of communication -- reading, writing, speaking, and listening. A version pilot-tested last year included: a teacher checklist that covers reading and oral language development; a survey answered by students that attempts to get at attitude toward reading; one sample per quarter of text that a student can read at an instructional level; two samples per quarter of student writing; student responses to textbook embedded open-ended tests of reading comprehension; scores on the year-end standardized test; the number of books read by the student during the year; and a checklist of language arts skills.

The portfolio is currently being revised based on the pilot test.

**Vermont Portfolio Assessment Project in grades 4-12** (2). The state of Vermont is pilot-testing a system for using student portfolios of writing to obtain an overview of student achievement statewide, and to assess the quality of programs.

The Vermont writing assessment plan has three parts: a prompted/timed writing sample scored centrally; a student self-selected "best piece" of writing scored centrally; and an on-site review of a sample of student writing portfolios. Single pieces are scored holistically and are used to assess student writing ability. The portfolio contains all drafts of any piece the student wants to include. They are evaluated on range of content, depth of revision, and students' willingness to take a risk. Portfolio evaluations will be used to evaluate schools' writing programs.
Using Portfolios For Informal Assessment Of Student Progress and Instruction (3). Gabe Della-Piana at the University of Utah, Salt Lake City has put some thought into a prototype portfolio system in writing to be used for instruction and informal assessment of student progress in grades K-8.

Each student has a cardboard box. These are used to hold folders; one folder for each piece of writing done by the student. On the front of each folder is space for a date and what was added to the folder on that date. On the inside back cover the student makes notes on "what I would like to learn to do." On the back cover the student and teacher note "accomplishments." All drafts and versions of pieces (dated) are included in the folder.

These are working folders for students. Teachers can also review them informally to assess progress of individuals and groups.

Reporting Reading Progress: A Comparison Portfolio For Parents (11). James Flood and Diane Lapp recommend a portfolio designed to show the progress of elementary school students to their parents. The portfolio contains test scores (norm-referenced and criterion-referenced), informal assessments (IRIs), samples of student writing at the beginning and end of the school year, self-evaluations, and samples of the material students can read at the beginning and end of the school year. A self-reflection essay could also be included that answers three questions: (1) How well do you think you do in reading? (2) What do you do when you try to read a hard word? (3) How do you select your own reading material?

Making the Writing Portfolio Real (11). Kathryn Howard was involved in developing a portfolio process with the goal of reflecting middle school students' views of themselves as writers. The portfolio process included establishing a climate in which students could freely express their feelings about their own writing and that of others; training students in how to self-reflect; and having students choose samples of both satisfactory and unsatisfactory pieces of writing for a portfolio. The content of the portfolio could be continuously updated during the course of the school year.

Using Portfolios To Assess Student Writing at SUNY (4). Several campuses at the State University of New York (including Stony Brook and Brockport) are using portfolios to determine whether individual students write competently. This is a requirement for graduation. (A similar scheme could be used at the high school level.)

Each student submits three self-selected, revised pieces and one in-class writing sample. The self-selected pieces include: (a) one narrative, descriptive, expressive or informal essay; (b) one academic essay; and (c) an analysis of another's essay. Each piece is accompanied by an explanation of what was to be accomplished by the piece, and a description of the process of writing the piece. All pieces are judged by the teaching staff, but not the students' own teachers, as being pass or fail using a fixed scoring rubric. A passing grade on the portfolio is a necessary, but not sufficient, condition to satisfy the writing requirement at the college. A dry run occurs a mid-semester so that students know what to expect and can see how they are doing.

Using Portfolios For Grading In Composition Classes (5). Christopher Burnham is using student writing portfolios to assign grades in his composition classes at New Mexico State University. (The procedure could also be used in grades 9-12.)

If students wish to receive a grade higher than a "C", they prepare a portfolio of samples of class work. First, they choose samples of work they feel are their best and write short explanations that point to the features that make the writing good. Then they choose two pieces and attach all drafts. Finally, the students state the grade they feel they should receive in the class, and provide a justification for the grade.
Adapting The Portfolio To Meet Student Needs in grades 9-12 (10). Margie Krest is a high school English teacher. She has all her students keep all their writing -- drafts, revisions, prewriting material, suggestions from classmates, and final drafts. This allows for collaborative discussion of such things as how well the student can incorporate other people’s suggestions into their work. Student grades are based on two scores -- a portfolio score (quantity of writing, amount of revision, risk taking); and a paper grade based on one to three final products selected by the teacher and student in collaboration. The frequency of assigning grades depends on grade level and what the students are working on. All students are required to do a minimum number of papers in various modes, but not all have to be graded. The major goal is to encourage students to take responsibility for their writing.

Self-Reflection/Self-Evaluation

Here are some ideas for promoting self-reflection in students.

Edgar Thompson (6) has students answer six questions about each major paper they write:

1. How much time did you spend on this paper?

2. Describe the process you went through to create this paper by addressing the following questions: Where did you get the idea for the paper? What invention strategy (either your own or one I’ve given you) did you use to help you explore your subject and get words down on paper? What problems did you have while writing the first draft? What kind of revision strategies did you use to shape and to refine your draft?

3. Group comments: First, list a point your group made about your writing. Then respond to their comments. For example, do you agree or disagree with what they said? What did you do as a result of their feedback? Follow this procedure for at least two or three of the points your group made and arrange your responses in the following manner:

   A. Group Comment:
      Your Response:
   B. Group Comment:
      Your Response:

4. What are the strengths of your paper? What points still cause you to feel uneasy?

5. What do you want me to look for when I evaluate this paper? What questions do you have for me?

6. What grade would you put on this paper and why?

The Fort Worth Independent School District (7) suggests that just as soon as students are developmentally and linguistically ready, they should monitor their own writing ability by comparing a recent piece with an earlier effort. Some samples of third-grade self-assessments are shown in Appendix 1.

Jill Marienberg at Hillsboro School District in Oregon (8) has her high school students select five pieces of writing to include in a final portfolio with a rationale for why they were selected. A sample letter is included in Appendix 1.
The EQUALS project provide a list of typical self-assessment questions that could be asked in mathematics. These include:

- Describe the tasks you did.
- What mathematics did you learn?
- How does this relate to what you have learned before?
- Of the math we've done lately, I feel most confident about _______.
- What I still don't understand is _______________.

Other self-reflection questions used by Linda Rief (14) and Kathryn Howard (12) include:

- Why did you select this piece of work for your portfolio?
- What was particularly important to you during the process of writing this piece?
- What have you learned about writing from your work on this piece?
- If you could go on working on this piece, what would you do?
- What particular skill or area of interest would you like to try out in future pieces of writing that stems from your work on this piece?
- What kind of writing would you like to do in the future?

Issues In Using Portfolios For Assessment

The issues presented below are largely taken from writing and portfolio consortium projects coordinated by the Northwest Evaluation Association (9). Solutions to these issues have not necessarily yet been worked out.

1. Purposes
   a. What is the purpose for implementing portfolios? As seen above, the purpose will help determine the content and procedures.
   b. Can portfolios be used for more than one purpose, for example, classroom instruction and large-scale assessment? Will the requirements for content, rating and self-control of content be compatible?

2. Curriculum And Instruction
   a. How will portfolios be worked into instruction?
   b. How will students reflect on their work?
   c. How will portfolios be different from work folders that are currently used?
3. Content
   a. What will be in the portfolio? All student selected? Any guidelines for types of things? Will the portfolio contain "indicators" (a variety of different types of measures such as standardized achievement test results, attitude measures, etc.) or just work samples?
   b. Who decides what types of things will go into portfolios? Teachers? District administration? How this is handled may determine whether teachers see portfolios as another "add-on" task, or whether they see them as integral and necessary components of instruction.
   c. Will just final products be included, or will there be an attempt to look at the process of development of a product?

4. Assessment
   a. How does assessment using portfolios fit in with other formal and informal (classroom) assessment? For example, other competency testing.
   b. If portfolios will be used to evaluate programs, or to formally document student learning, how can the progress shown in the portfolio be combined across students in order to show general group status and progress?
   c. What is the role of students in assessment? How will student self-assessment be used? If others rate student performance, how will these results be used with students?
   d. How can portfolios be assessed? Assessment implies a judgment of quality. Where are the scoring rubrics and criteria for making these judgments?
   e. How will we be sure that the portfolio contains a representative sample of the type of work a student can do? How will we be sure that the sample of work obtained is a good indicator of "communication competence?"

5. Management/Logistics
   a. Who selects the actual work that goes into the portfolio? Teacher or student?
   b. How are portfolios stored and moved from teacher to teacher?
   c. Should parents have access to portfolios? Will this change what students decide to place in their portfolios?
   d. Who does the portfolio belong to? Student? Parent? District? This is especially a problem if portfolios will be transferred across teachers over time.

6. Staff Development
   a. What types of inservice for teachers and administrators will be needed to prepare teachers to implement and use portfolios?
   b. Teachers will need to have a great deal of knowledge about what is good writing, speaking or listening in order to use portfolios successfully.
Bibliography

A bibliography of articles about using portfolios in assessment and instruction is included in Appendix 2. Copies of these articles are available from the Test Center, NWREL, 503-275-9562.

Notes:

(1) Annie Calkins, Juneau School District, 10014 Crazy Horse drive, Juneau, AK 99801.

(2) Geof Hewitt, Vermont Portfolio Assessment Project, Vermont State Department of Education, Montpelier, VT 05602.

(3) Gabe Della-Plana, University of Utah, 327 Milton Bennion Hall, Salt Lake City, Utah 84112.

(4) Peter Elbow and Pat Belanoff, State University of New York, Stony Brook.


(6) Edgar Thompson, Self-Assessment And The Mastery Of Writing, in J.D. Beard and Scott E. McNabb (Eds.), Testing In the English Language Arts: Uses and Abuses, Michigan Council Of Teachers Of English, P.O. Box 892, Rochester, Michigan 48063, 1985, pp. 55-60.

(7) Fort Worth Independent School District, 3210 W. Lancaster, Fort Worth, Texas 76107.


(9) Allan Olson, Executive Director, Northwest Evaluation Association, P.O. Box 2122, Lake Oswego, Oregon 97035, 503-624-1951.


(12) Kathryn Howard, The Quarterly of the National Writing Project and the Center For The Study of Writing, 5513 Tolman Hall, School of Education, University of California, Berkeley, CA 94720, 415-643-7022.

(13) Assessment Alternatives in Mathematics, EQUALS, Lawrence Hall of Science, University of California, Berkeley, CA 94720, 1989.

APPENDIX 1

EXAMPLES OF STUDENT SELF-REFLECTION
My first descriptive I wrote was the worst I ever wrote. I had no introduction, misspelled words, and no ending except The End. I jumped around and only wrote short pages. But I've gotten much better, because I have everything I need now in my descriptive. Like I have endings that tie up with my introductions and write 3 to 6 pages I made an 4 on teams this year because I had good details and other things. Now I can edit my own writing papers and I can help other people with editing their writing papers.

When I began writing expressive narratives it was not very good because I had several misspelled words, few details, and lots of things. Now I have lots of details, great introductions, great settings. Well this is everything I have to say about my descriptive writing and expressive narrative. for this year. Next year I need to work harder on putting more details in my settings.
At the beginning of the year I was terrified writer. In my descriptive I had no introductions. Now I have an okay introductions. I had half a pg. on my descriptive. Now when I write a descriptive I have a full pg. I had misspelled words. Now I hardly have misspelled words. I skipped about. Now I follow a pattern. I did not use location word. Now I use location words. I need to improve on my hand writing. At the beginning of the year my narratives were the worst. I never saw in my life. I had no introductions. Now I have a lot of introductions. I put my letters close together. Now I put space in my words. I had misspelled words. Now I spelled my words correctly. I used to write sloppy. But now I write real neat. I had one pg story. But now I have 5 or 9 pgs. I did not have transitional words. Now I often use transitional words. I had no setting. Now I have a setting. I had no detail. Now in my story I have plenty of detail. I left the reader dangling. Now I don't leave the reader dangling. I made a 3 on my teams writing test.
I have really improved in my writing. I used to write a 7 line page, but now I write 3 pages or more. I give an introduction and a conclusion. I love writing because it makes me think of ideas. This year I made a 4 and a 99 on Teams in writing. Since I've been in third grade has shown me more writing skills. At the beginning of the year I left out things that I don't leave out now. I also know how to help someone edit a writing. I need more practice on describing my settings. In my first descriptive I jumped around, had no introduction, no conclusion, or any location words. I just gave a lot of details. But now I do all of that.
To Whom it May Concern:

Enclosed in my portfolio you will find five samples of what I consider to be my finest written work during my junior year in high school. The portfolio includes writing from the expository, informative, and reflective modes in order to give a cross section of voice and style. Although four of the samples were created in settings with ample time for discussion and response group critiquing, one sample is taken from the Hillsboro District Writing Assessment, a 150 minute in-class testing experience. I have included the writing assessment sample to provide a reflection of my ability to write and organize thoughts under pressure and time constraints, utilizing a topic of someone else’s choice.

Contents:

1. "I See You There", a Reflective Piece
2. Poetry: "Silver" and "Bump Slawson"
3. Literary Analysis of the Moral Value of the Major Characters in The Scarlet Letter
4. Hillsboro District Writing Assessment
5. Research Paper: Communist Expansion

Discussion:

"I See You There" is a short essay constructed early in my junior year. Although it is not a full blown essay, its mood and voice are more "me" than any other piece of writing in my portfolio. My verb choice in such cases as "snaked" and "wafted" indicate an awareness of precise wording and a discarding of the "crutch" state-of-being verbs. I have used fragments in this piece as well, since they seemed to portray my stream-of-consciousness mood when remembering my first grade friend, Evan Blake. I have used repetition of the phrase, "I see you there", to give a sense of roundness to the piece. This is my favorite piece of writing in the portfolio because I am close to the subject matter and the feelings come from my heart.

The two poetry pieces, "Silver" and "Bump Slawson", are included to show my ability with concise language, various figures of speech, and sensory imagery. Both free verse poems reflect power of observation and use of specific detail.
I have included "A Literary Analysis of the Major characters in The Scarlet Letter" because of its analytic qualities. In this five paragraph essay, one can see use of a formal introduction with a thesis statement, various body paragraphs with topic sentences, supporting detail, direct quotation, and summary statements. The paper is concluded, utilizing a formal conclusion which ends with broadened universal application. My knowledge of the characters in The Scarlet Letter is intimate, revealing a close reading and understanding of the novel. A grasping of Lawrence Kohlberg's theory of moral development is also apparent in the discussion of the various stages through which the literary characters, Hester Prynne, Arthur Dimmesdale, and Roger Chillingworth must pass. This paper was the most difficult one for me to write this year. Higher levels of thinking are called for throughout the paper, because the question "why" is always needing to be addressed. Finally applying knowledge gleaned from literature to my own world is a challenging task. That the characters in The Scarlet Letter, written in 1850, could still serve as guides for our own moral measurement in 1990 is quite a revelation to me.

The Hillsboro District Writing Assessment is included to show my ability to work under time constraints and pressure, alone in a classroom setting. The prompt, "An Event I Would Like to Remember when I am Old," was given at the onset of the 150 minute test. I do like my reflective voice in this piece as well, but I would like to have more time to further edit and change this sample.

The research paper, "Communist Expansion", is included because it utilizes not only my powers of organizing material from outside sources, but it calls for use of footnoting and bibliography forms. Knowledge of the research process is important in college work, and I believe I have risen successfully to the task in this paper.

With such variety reflected in my five piece portfolio, I hope that my growth, competence, and college-level thinking and writing skills can be assessed. I am proud to submit this collection as a reflection of my ability.

Respectfully submitted,

Jonathan Hillsboro
APPENDIX 2

ANNOTATED BIBLIOGRAPHY OF PORTFOLIO ARTICLES
The following articles are available to educators in the Northwest from the Test Center at Northwest Regional Educational Laboratory (Judy Arter or Fay Walther, 503-275-9500). We will attempt to serve those outside our region as resources permit.

Articles were obtained from a number of sources including consortium efforts by the Northwest Evaluation Association (Allan Olson, 503-624-1951) and the state of Alaska (Bob Silverman, 907-465-2865).

Articles cataloged as of 12/30/89

The Role Of Revision In The Writing Process, c/o Linda Lewis, Fort Worth Independent School District, 3210 W. Lancaster, Ft. Worth, Texas 76107, 1989. (TC#470.6ROLOFR)

This is a draft document providing information on using portfolios in writing instruction and assessment: rationale, types, content, student self-reflection, teacher documentation of student progress, and goals for grades K-5. Included are samples of students' written self-reflections, samples of teacher analysis of student progress and skills checklists for grades K-5.

Portfolio Assessment, Kathleen Jongsma, Reading Teacher, Dec., 1989; also, Northside Schools, 204 Prinz St., San Antonio, TX 78213. (TC#400.6PORASS)

This article contains brief statements from three different individuals about the importance and use of portfolios for providing a more complete picture of student progress and ability. Two statements describe integrated language arts portfolios containing a number of different types of indicators. The other describes the use of classroom work samples to supplement a timed writing assessment. The article is descriptive; no actual instruments or materials are reproduced.

Juneau Integrated Language Arts Portfolio For Grade 1, Annie Calkins, Juneau School District, 10014 Crazy Horse Drive, Juneau, AK 99801, (907) 463-5015, 1989. (TC#400.3JUNINL)

The first version of the Juneau Grade 1 integrated language arts portfolio included: teacher checklists on reading development and oral language; a self-report of attitude toward reading: one sample per quarter of text that a student can read at the instructional level; two samples per quarter of student writing; textbook embedded open-ended tests of reading comprehension; standardized test scores; number of books read by the student; and a checklist of language arts skills. Included are checklists and rating forms.

This entry also includes a revision of the portfolio based on teacher feedback. The 1990 version includes:

1. Self-reflection -- A student dictated or written letter explaining why certain pieces were selected for the portfolio.

2. Four student-teacher selected reading samples.
3. Eight writing samples (four student-selected and four teacher-selected).

4. A reading attitude survey.

5. A speaking/listening checklist.

Included is a sample scoring rubric for grade 1 writing samples.

**Reporting Reading Progress: A Comparison Portfolio For Parents.** James Flood and Diane Lapp, Reading Teacher, March 1989, 508-514. (TC#400.3REPREP)

The authors describe the content of a reading portfolio designed to show student progress to parents. They suggest the portfolio contain test scores (norm-referenced and criterion-referenced), informal assessments (IRIs), samples of student writing at the beginning and end of the school year, self-evaluations, and samples of the material students can read at the beginning and end of the school year. The article includes a three-question self-analysis of reading processes, but does not reproduce sample checklists or IRIs.

**Portfolio Contents.** Jill Marienberg, Hillsboro High School District, 3285 S.E. Road Bridge Rd., Hillsboro, Oregon 97123, 503-648-8561, 1990. (TC#470.3PORCON)

This piece contains notes that outline a student portfolio in writing, used primarily for instructional purposes. Content includes a letter from the teacher that certifies the work as coming from the student, five self-selected writing samples of various types, and a cover letter from the student explaining why he or she selected these works. Several complete student portfolios (reproduced with the permission of the students) are included.

**The Portfolio Approach To Assessing Student Writing: An Interim Report.** Paul Curran. State University of New York at Brockport: also in Composition Chronicle, March. 1989. (TC#470.3PORAPT)

This article describes a portfolio model used to assess college student writing competence. It was patterned after that used at SUNY-Stony Brook. Students submit four essays -- three after revision and one extemporaneous. All essays are part of class work and are reviewed by the instructor before submission. Each essay has a cover sheet describing the writer's purpose, audience, sources and consultants. External readers assign a pass or fail. A dry run occurs at midterm to let students know how they are doing and to familiarize them with the process. The article also discusses issues, concerns and solutions. The document is descriptive and does not include actual student work or rating forms.

**State University of New York, Stony Brook Portfolio Based Evaluation Program.** Peter Elbow and Pat Belanoff, in New Methods in College Writing Programs, NY: MLA, 1986. (TC#470.3STAUNO)

These two articles describe the use of writing portfolios to assess student competence at the SUNY-Stony Brook campus. Each student submits three self-selected, revised pieces and one in-class writing sample. The self-selected pieces include: (a) one narrative, descriptive, expressive or informal essay; (b) one academic essay; and (c) an analysis of another's essay. Each piece is accompanied by an explanation of what was to be accomplished by the piece, and a description of the process of writing the piece. All pieces are judged by teaching staff, but not the students' own teachers, as being pass or fail. A passing grade on the portfolio is a necessary but not sufficient condition to satisfy the writing requirement at the college. A dry run occurs at mid-semester so that students can see how they are doing. The papers also discuss the
advantages and disadvantages of the process as well as what worked and didn't work. The document is descriptive and does not include actual student work or rating forms.

Vermont Portfolio Assessment Project, Writing Assessment Leadership Committee, c/o Geof Hewitt, Basic Education, Vermont State Department of Education, Montpelier, VT 05602, 1989. (TC#470.3VERPOA)

Vermont's draft state writing assessment plan has three parts: a prompted/timed sample scored centrally; a self-selected "best piece" scored centrally; and on-site review of a sample of student portfolios. Single pieces are scored holistically and are used to assess student writing ability. The portfolio contains all drafts of any piece the student wants to include. Portfolios will be evaluated on range of content, depth of revision, and students' willingness to take a risk; and will be used to evaluate schools' writing programs. A 14-item checklist used to describe portfolios is included in the document. The document also discusses how to set up a cross-grade portfolio system. This involves selecting items for the permanent portfolio from the current year folder. There are suggestions for physical design, cover letter and use in instruction and program improvement.

Vermont is pilot testing its writing and mathematics portfolios with fourth and eighth graders in 40 schools during school year 1990-91. The plan is to use portfolios statewide by fall, 1992. The updated portfolio plan for writing that will be used in this pilot is a separate entry in the bibliography. (See TC#470.3VERWRA2: Articles cataloged between 8/1 and 10/31.)

Institutionalizing Inquiry, Miles Myers. The Quarterly of the National Writing Project and the Center for the Study of Writing, 9, July 1987, pp. 1-4. (TC#060.6INSINQ)

This article broadly discusses the level of literacy required for today's world, the need for schools to restructure to achieve this goal with students and the implications of this for assessment. With respect to the latter, the author proposes: portfolios containing all of a student's work; learning logs; teachers periodically reviewing portfolios to develop a collective sense of progress; evaluating work samples from all content areas; and teachers engaging in classroom research. The document does not contain actual instruments.


The author describes a procedure for developing student portfolios of work in the areas of reading and writing. She advocates collection of responses to a number of tasks that vary along the dimensions of focus (mechanics v. how well something achieved its purpose); structure (structured or naturalistic); locus of control (student self-assessment v. teacher assessment); and instrusiveness. Collecting a variety of outputs for various purposes in various task settings enables one to get a broad picture of achievement. However, the author warns that the content of the portfolio has to be planned so that not everything is included. She recommends three types of content -- required (everyone assesses the same thing in the same way); semi-required (certain types of things are required, but exactly what is kept is up to the teacher and student); and open-ended (the teacher and/or student selects work that exemplifies the student's achievement).
Dimensions for Looking at Children’s Writings and Drawings, NCTE, 1111 Kenyon Road, Urbana, Illinois 61801, 1976. (TC#400.3DIMFOL)

This rating form is described by the author as an aid in the description of writing more than an aid in the evaluation of writing. Writings and drawings are described in terms of what is expressed (themes, organization and range of vocabulary); the voice of the writer (stance, style, communication of individuality); and form (language use and mechanics). The rating form is included.

Multiple-Intelligences Go To School, Howard Gardner and Thomas Hatch, Educational Researcher, 18, 1989, pp. 4-10. (TC#050.6MULING)

This article describes Gardner's theory of multiple intelligences and three programs that are built on the idea of multiple intelligences. The authors propose that the implications for assessment of the theory of multiple intelligences require the use of portfolios. The programs described use portfolios for assessing student progress and program evaluation. The document is descriptive only; no actual instruments are reproduced.


This handbook is designed for use by classroom teachers in grades one and two to informally assess student progress on state curriculum goals in communication. There are three parts to the assessment procedure involving a series of checklists covering thinking skills, attitudes toward school, listening, silent reading comprehension, writing, speaking and oral language. Checklists are included.

Portfolio Assessment: Sampling Student Work. Educational Leadership, April. 1989. (TC#400.6PORASS)

This article briefly describes some approaches to using portfolios in instruction and to document student growth. The examples cited are in the area of writing. No instruments are included.

Portfolio Evaluation: Room to Breathe and Grow, in C. Bridges (Ed.), Training the Teacher, Urbana, IL: NCTE, 1986. (TC#470.3PCREVR)

This paper describes a procedure for using portfolios to assess students in college composition classes. (It could also be adapted to high school.) The procedure encourages student self-evaluation -- students choose samples of their own work to place in their portfolio and must provide justification for a grade they request.


This article describes several projects that resulted in "meaning centered" checklists for reading and writing. Three checklists are provided.
The Whole Language Evaluation Book, Portsmouth, NH: Heinemann, 1989. (TC#400.3WHOLAE)

This anthology of essays by teachers and writing consultants explores a variety of issues and approaches relating to whole language evaluation at the classroom level. Included are samples of self and peer-evaluation as well as teacher-directed evaluation ratings, checklists, anecdotal records and miscues. Broad topics include the theory and general principles of whole language evaluation, changes in evaluation through the grade levels, and evaluation of students who have writing difficulties. The major focus is on helping teachers make better use of evaluation to understand their students, and on integrating whole language evaluation and instruction.

Work Portfolio As An Assessment Tool For Instruction, Gabe Della-Piana. Department of Educational Psychology, 327 Milton Bennion Hall, University of Utah, Salt Lake City, Utah 84112, 1989. (TC#470.3WORFOA)

This is a draft paper which describes, in detail, a portfolio scheme for writing for grades K-8. Included are layout, content and forms for the front and back covers.

Assessment Alternatives in Mathematics, EQUALS, Lawrence Hall of Science, University of California, Berkeley, California 94720, 1989. (TC#500.6ASSALI)

This document provides an overview of some possible assessment methods in mathematics that cover both process and products. Specific examples are provided for writing in mathematics, mathematical investigations, open-ended questions, performance assessment, observations, interviews, and student self-assessment. Any of the student generated material could be self-selected for a portfolio of work. The paper also includes a discussion of assessment issues and a list of probing questions teachers can use during instruction.

Writing in Mathematics, J. Mumme, 10/89. (TC#500.3WRIINM)

This paper lists 30 writing prompts to assess mathematical problem solving ability. There are also a list of instructional materials with a focus on writing, and a list of books and articles on writing in mathematics.

Portfolios -- A Mathematics Assessment Alternative, Judy Mumme. California Mathematics Project, University of California, Department of Mathematics, Santa Barbara, CA 93106, 1989. (TC#500.6PORAMA)

This paper provides a rationale for compiling portfolios of student work in mathematics for assessment and instructional purposes. The author includes a description of the types of things that might go into such a portfolio, and how they should be selected for inclusion.


ARTS PROPEL is a cooperative research project concerned with arts education at the junior and senior high school levels. It is designed to devise assessments of student learning which are systematic, powerful and tuned to the central issues in artistic development.

Portfolios, as used in ARTS PROPEL, have three parts. First is a comprehensive folder of student work during a course. Second, are targeted portfolios which contain work selected from the folder by the student to convey certain aspects of learning and performance. Third, are
supplemental materials comprising such things as discussion notes, student self-reflections, notes for ideas, etc.

The associated article by Wolf elaborates on the rationale for the portfolios and draws some parallels to other subject areas.

Anchorage Chapter 1 Student Portfolio, c/o Thomas Straugh, Anchorage School District, P.O. Box 196614, Anchorage, AK 99519-6614, 907-269-2133, 1989. (TC#400.3ANCCHI)

The Anchorage Chapter 1 Student Portfolio consists of several teacher checklists, a list of books read and writing samples. Checklists cover planning strategies (e.g., brainstorm, set purpose, and consider audience); reading/writing strategies (e.g., reread, predict, summarize and retell); sharing strategies (e.g., discuss, evaluate and illustrate); listening behaviors and skills; speaking behaviors and skills; and reading behaviors and skills.

The checklists are included, but the materials do not include descriptions of rationale or use.

Portfolio Assessment Clearinghouse, c/o San Dieguito Union High School District, 710 Encinitas Blvd., Encinitas, CA 92024, 619-753-6491, 1990. (TC#000.6SANDIP)

The Portfolio Assessment Clearinghouse publishes the Portfolio News quarterly. Winfield Cooper and Jan Davies are the editors. Articles include descriptions of portfolio projects, statements concerning how and why portfolios could or should be used, reviews of literature, etc.

Copies of the newsletter are included.

Self-Assessment And The Mastery Of Writing, Edgar Thompson, in Testing In The English Language Arts, Michigan Council of Teachers Of English, P.O. Box 892, Rochester, Michigan 48063, 1985, pp. 55-60. (TC#470.3SELASA)

This article lists six self-reflective and evaluative questions that the author requires students to address for each paper they write. These cover self-reflection on the writing process, peer input and responses, strengths and weaknesses of the paper, what the student wants the teacher to look for in the paper, and what grade the paper should get. The questions and examples of their use are provided in the article.

NWEA: Writing Portfolio Assessment Issues And Concerns. NWEA Writing Assessment Conference, October, 1989, c/o Allan Olson, Northwest Evaluation Association, P.O. Box 2122, Lake Oswego, OR 97035, 503-624-1951. (TC#470.6NWEWRP)

This document is a summary of issues and concerns surrounding writing portfolio assessment generated at a writing assessment conference convened by NWEA in October, 1989. Issues are organized into the categories of management/logistics, assessment, purpose, curriculum, and staff development. An operational definition of a writing portfolio is included.
Articles cataloged between 1/1/90 and 3/15/90

Fairbanks North Star Borough School District Elementary Language Arts and Reading Assessment, Grades 1 and 5. Jim Villano, Fairbanks North Star Borough School, Box 1250, Fairbanks, AK 99707-1250, 1989. (TC#400.3FAINOS)

This document includes a package of instruments for assessing various aspects of reading and language arts achievement at grades 1 and 5. In grade 5 there is a reading test consisting of long passages, multiple-choice questions and short responses; a scale for measuring attitude toward reading; a writing sample scored on six traits (Ideas/Content, Organization/ Development, Voice/Tone/Flavor; Effective Word Choice; Syntax/Sentence Structure; Writing Conventions); and holistic ratings of listening and speaking.

The grade 1 package includes a "writing sample" in which students prepare a picture story and then caption it; a scale for measuring attitude toward reading; a teacher rating of reading progress; and holistic listening and speaking ratings.

Southwest Region Schools Competency-Based Curriculum -- Grades K-4. Janeile Cowan, Southwest Region Schools, Box 90, Dillingham, Alaska 99576. 1989. (TC#010.3SOURES)

This is a draft curriculum document in which math and language arts objectives for grades K-4 are presented in two forms: (a) as a teacher checklist; and (b) with an indication of how to assess each objective. Objectives include listening, speaking, reading, writing, study skills, numeration, computation, problem solving, measurement and geometry.

Southwest Regional Schools Teacher and Substitute Teacher Portfolios. Janeile Cowan, Southwest Region Schools, Box 90, Dillingham, Alaska 99576. 1989. (TC#130.4SOURES)

There are two professional portfolios in this packet. The first is the Teacher Portfolio For The Improvement of Instruction. The teacher portfolio will contain several different types of information:

a. A narrative written by the teacher that describes a personal plan for classroom activities that will support the mastery of school adopted objectives for the year. This narrative will be updated during the school year by adding progress reports, changes in goals, activities that relate to the goals, etc.

b. Checklists completed by the site administrator at least four times a year that cover lesson plans, room organization, student participation, instruction, classroom control and recording of student progress.

c. Four videotaped lesson presentations that are rated on various aspects of the clinical teaching model: reinforcement, anticipatory set, closure, modeling, motivation, active participation and retention activities.

The second document is the Substitute Teacher Handbook and Inservice Guide used to select qualified substitute teachers. Substitute teacher applicants must first submit a persuasive letter that is rated on neatness, staying on the subject, imagination, sentences, mechanics, and ideas.
They also have to submit a vita. The remainder is a training manual on roles, responsibilities, class management, fire drills and requirements for submitting lesson plans. There is a substitute teacher self-quiz.

Copies of all rating forms and checklists for both documents are included.


This article describes attempts at the University of Minnesota to implement plans that require students to submit a cross-disciplinary portfolio of writing for entrance, and then to add to this portfolio during the college years.

From Computer Management To Portfolio Assessment, Jackie Mathews, Orange Country Public Schools, Orlando, FL, The Reading Teacher, February 1990. (TC#440.6FROCOM)

This article describes the basic design of a reading portfolio for grades K-2. The four core elements are: a reading development checklist, writing samples, a list of books read by the student and a test of reading comprehension. Optional elements include student self-evaluation, running reading records, audiotapes, anecdotal records, pages from reading logs, or other measures a teacher or student feels would illustrate the growth of the student as a language learner.

The Reading Development Checklist includes concepts about print, attitudes toward reading, strategies for word identification and comprehension strategies. (Some of the individual items on the checklist are presented in the article.) The reading comprehension test is still under development.

The various portions of the portfolio system have not yet been implemented.

The article also describes other necessary components for an innovation of this type: administrative support, a climate for change, people expert in the area of reading, a good staff development program, and grass roots interest.


This article describes an innovative teacher evaluation project at Stanford University. They are working on both teacher portfolios and teacher assessment centers. The assessment centers require teachers to deliver a lecture, plan a lesson with colleagues, and perform other tasks related to their subject area of expertise.

In the portfolio part of the assessment, teachers were asked to compile samples of their work that they thought reflected their best teaching -- lesson plans, videotapes and samples of student work. The portfolio included self-reflection. It is unclear from the article how these portfolios were evaluated for quality; however, the author did mention that they allow for differences in style. One drawback of the system is that it is time-consuming and most of the teachers in the project did their portfolios on their own time. The author feels that this type of self-reflection should be built into the regular work-day.

Although this article focuses on the use of portfolios to document prior learning for nursing candidates, the principles discussed could apply to educators.

The portfolio system described has two parts. The first is a narrative written by the candidate which describes prior learning experiences and provides evidence that concepts and principles from these experiences are being applied in practice. The second part is documentation that the learning experiences have taken place. This could include diplomas, transcripts, performance ratings, employment records, workshop certificates, test results, etc.

To be most effective, the categories of "expertise" to be demonstrated by the portfolio must be laid out in advance, so that candidates know what the portfolio must show. Also, criteria for judging the portfolios must be established.


The Psychological Corporation will shortly have available portfolio packages for math and language arts for grades 1-8. The document cited above provides a brief outline of what those packages will be like. According to Psychological Corporation, "a portfolio is a file or folder containing a variety of information that documents a student's experiences and accomplishments." Thus, this system appears to involve both formal and informal indicators of many aspects of performance. Included in the portfolio system are standardized test scores, curriculum transcripts, a list of awards and distinctions, student work samples, teacher rating scales and student self-evaluations.

The language arts portfolio system includes portfolio folders for each student, a portfolio storage box, reading to write prompts, and teacher training materials. There is a general scoring rubric having three areas: responses to reading (amount of information, accuracy of information, and selection of information); management of content (organization/tocus, development and accomplishment of task); and command of language (sentence structure, word choice and grammar/usage/mechanics).

The mathematics portfolio system is not described in this document.


In addition to discussing the rationale for using portfolios to assess reading, this article also suggests content for reading portfolios, how to select material for a portfolio and how the portfolio should be organized.

The rationale is: 1) sound assessment is anchored in authenticity; 2) assessment must be a continuous process; 3) valid reading assessment must be multi-dimensional; and 4) assessment must provide for active collaborative reflection by both teacher and student.

Content would include samples of the student's work, the teacher's observational notes, the student's own periodic self-evaluation, and progress notes contributed by the student and teacher collaboratively. Specific items to be included would depend on the purpose for the portfolio but
include such things as written responses to reading, reading logs, selected daily work, classroom tests, checklists, unit projects, audiotapes, etc. The idea is to have a variety of indicators.

The real value of portfolios, according to the author, lies not in any single approach, but rather in the mindset that assessment is ongoing, and that periodic visits to the portfolio by the teacher and student are instructionally essential.

Adapting The Portfolio To Meet Student Needs. Margie Krest, English Journal, 79, 1990, pp. 29-34. (TC#470.6ADATHP)

This article was written by a high school writing teacher. It provides some hints and ideas for using and adapting portfolios based on several years of use in her own classrooms. Some of the ideas presented are:

1. She has students keep all their writing -- drafts, revisions, prewriting materials, suggestions from classmates, and final drafts. This allows for collaborative discussion of such things as how well the student can incorporate other people's suggestions into their work, and student willingness to take risks.

2. Not each piece of writing is graded. This encourages students to experiment. Grades are based on two scores -- a portfolio score (reflecting the quantity of writing, and/or the amount of revision, risk taking and changing they did on all their papers), and a "paper grade" based on one to three final products (ones that have been conferred about, revised and edited thoroughly).

The weight of these two components toward the final grade depends on the level of students and what they are working on. Sometimes the weighting for the two parts is decided collaboratively with the students.

3. The frequency of assessment varies by grade and what is being worked on. For example, if the emphasis is on fluency, assessment might only occur after each quarter so that students have time to work at becoming more fluent.

4. Students are encouraged to continue revising a paper as many times as they want. It can be regraded in subsequent portfolios.

5. Most writing is based on free choice. However, the author does require that all students do a minimum number of papers in various modes. The modes depend on the level of the student. For example, a college-bound student would be required to write a compare-contrast paper. These do not have to be among the papers that students choose to be graded.

6. The major goal is to encourage students to take responsibility for their writing as much as possible -- what to write about, how much revision will be done, etc.


This article briefly describes Vermont's plans to establish a portfolio system for state assessment in the areas of writing and mathematics. In addition to developing the portfolio content, logistics and scoring, plans include rethinking the state curriculum requirements, developing training materials for teachers, using citizen advisory groups and reporting in ways that will promote discussion.
This is a brief summary of presentations on portfolios made at the NCTE annual meeting in 1989. Four presentations are summarized: Jay Sugamian, discussing the use of portfolios for the improvement of teaching; Pat Belanoff, reviewing six years of experience using portfolios in freshman writing classes; Barbara Morris, outlining the use of portfolios at the University of Michigan; and Michael Flanigan, emphasizing how using portfolios promotes teacher dialogue.


Although not formally labeling itself an article about portfolios, this document discusses how assessment is an integral part of instruction in whole language classrooms. As such, many of the suggestions presented relate to keeping performance logs of students.

The authors define whole language instruction and describe the implications for assessment. Basically, the only real way to assess in a whole language classroom is to observe and collect student performance and behavior as it occurs; this entails being an active participant in interactions with students.

The paper then goes on to discuss five issues surrounding this type of "naturalistic" assessment: 1) when to record information; 2) how to record information; 3) what information to record; 4) how to make sense of the information collected; and 5) how to ensure the trustworthiness of the assessment data.

Appendices to the article include examples of anecdotal records, "markers" that can be used to describe a student's control of language, two checklists that teachers developed in order to summarize the observations they were making about students, and samples of teachers' narrative reports written for different audiences.
Articles cataloged between 3/15/90 and 7/30/90

NWEA White Paper On Aggregating Portfolio Data, Carol Meyer, Steven Schuman, Nancy Angello, Northwest Evaluation Association, 5 Centerpointe Dr., Suite 100, Lake Oswego, OR 97035, (503) 624-1951, 1990. (TC#150.6NWEWHP)

This paper summarizes key issues and concerns related to aggregating assessment information from portfolios. The working definition of "portfolio" used in this document is:

"A portfolio is a purposeful collection of student work that exhibits to the student (and/or others) the student's efforts, progress or achievement in (a) given area(s). The collection must include student participation in selection of portfolio content; the criteria for selection; the criteria for judging merit; and evidence of student self-reflection."

The paper discusses a number of specific questions in six major areas. These areas, and a sample of the questions discussed in each are:

1. The impact of "newness" of portfolios on aggregating portfolio data.
   - Are any portfolio projects well enough implemented as instructional models that sites exist for trying out potential aggregation methods/systems?
   - Do portfolio projects exist where aggregation of portfolio data beyond the individual level has occurred?

2. Levels of aggregation of portfolio data
   - Is there a conceptual continuum of alternatives for aggregating portfolio data?

3. Potential conflicts for portfolios serving both purposes of instruction/individual assessment and large scale assessment.
   - Is there a concern of current and intended users of portfolios that large scale assessment needs will jeopardize the instructional value of portfolios?
   - Will the aggregation of portfolio data force standardization of portfolios which directly conflicts with the desire for portfolios to be individualized?

4. Potential benefits of portfolios serving both purposes of instruction/individual assessment and large scale assessment.
   - Since what is assessed is valued, will the use of portfolios for assessment communicate a broader range of student performances which are valued?
   - Can the use of portfolios for multiple assessment purposes eliminate redundant or "add on" assessment/evaluation activities?

5. Using appropriate methodology to aggregate portfolio data
   - Can aggregation of portfolio data occur if portfolio contents, assignments, ratings, etc., have not been standardized?
   - Does adequate methodology currently exist to aggregate portfolio data?

6. Other issues relating to aggregating portfolio data
   - Is aggregating portfolio data cost effective?
Finding the Value in Evaluation: Self-Assessment in a Middle School Classroom. Linda Rief, Educational Leadership, March 1990, pp. 24-29. (TC#470.3FINTHV)

This article presents a case study to illustrate why and how students should/can choose their own topics and genres for reading and writing; and how promoting self-evaluation can add depth and meaning to learning.

The author requires students to read at least 30 minutes a day and produce at least five rough draft pages of writing a week. Periodically, the students are asked to rank their work from most effective to least effective and to evaluate it by considering the following questions:

1. What makes this your best piece?
2. How did you go about writing it?
3. What problems did you encounter? How did you solve them?
4. What makes your most effective piece different from your least effective piece?
5. What goals did you set for yourself? How well did you accomplish them?
6. What are your goals for the next 12 weeks?

The author also describes classroom conditions necessary to make the process work.

Adapting Portfolios For Large-Scale Use. Jay Simmons. Educational Leadership, March 1990, p. 28. (TC#470.6ADOPOF)

This summary briefly describes a set of characteristics of portfolios that might be used as a better measure of student achievement than holistic ratings of single writing samples.

The author requested 27 fifth grade students to select three samples of their best work for a portfolio. The students also wrote an explanation of why the pieces chosen were their best work and wrote a timed essay. In addition to rating each piece holistically, the author also examined the collection of writings for:

1. paper length,
2. mode(s) of discourse, and
3. correspondence between student’s lists of the strengths represented in their papers and similar lists prepared by raters.

The author found interesting correspondences between these factors and the holistic ratings. The project will be repeated on a larger scale next year.
This article uses examples of three portfolio projects to make the point that there is no such thing as The Portfolio; different groups end up with different portfolio systems depending on their purposes and what would best serve the local community of teachers and students. Prior to discussing the three examples, the authors mention various possible purposes for portfolios and design considerations for portfolios. These are:

1. Purposes for portfolios could include motivating students, promoting learning through reflection and self-assessment, evaluating or changing curriculum, replacing or validating other tests, establishing exit requirements for coursework or graduation, tracking growth over time, and evaluating students' thinking and writing processes.

2. Design considerations include:
   a. Who selects what goes into the portfolio -- students or teachers?
   b. What goes into the portfolio -- finished pieces, impromptu samples, work in progress, multiple drafts, particular domains of writing?
   c. How much should be included?
   d. What might be done with the portfolios -- evaluation criteria, scored as a whole or each piece separately?
   e. Who hears about the results?
   f. What provisions can be made for revising the portfolio program?

Examples used to illustrate the possible range of portfolio systems are:

1. Junior high students choosing writing from several different subject areas so that writing for different purposes and audiences can be examined. Students also include a letter explaining why they selected each piece and how they viewed themselves as writers.

2. Ninth graders writing letters to their teachers discussing the strengths and weaknesses reflected in their portfolios. Teachers respond in writing and students then have a chance to respond again.

3. Teacher interactions that occur while examining and comparing student portfolios.

The authors conclude that:

1. The benefits of portfolios lie as much in the discussion generated among teachers as with the formal information they provide.

2. Portfolios have their greatest impact when they become part of the regular operation of the classroom.

The author was involved in developing a portfolio process with the goal of reflecting students' views of themselves as writers. The steps in this process included:
1. Establishing a climate in which students could freely express their feelings about their own writing and that of others. This entailed the oral sharing of writing, with question content, tone of voice and question phrasing initially modelled by the teacher. This developed not only an atmosphere of acceptance but also increasing depth in the analysis of each other's work.

2. Asking students for written self-reflections. Students were asked to address two issues: Discuss one thing that is done well in your writing. Discuss one thing that needs to be improved in your writing. Student responses were initially superficial, but gained depth with modelling and feedback.

3. Asking students to choose, from their work folders, the writing that was of most "importance" to them. Students answered the following questions:
   a. Why did you select this piece of work?
   b. What do you see as the special strengths of this work?
   c. What was particularly important to you during the process of writing this piece?
   d. What have you learned about writing from your work on this piece?
   e. If you could go on working on this piece, what would you do?
   f. What particular skill or area of interest would you like to try out in future pieces of writing that stems from your work on this piece?
   g. What kind of writing would you like to do in the future?

4. Having students choose both a satisfactory and an unsatisfactory piece of writing and analyzing the differences. A list of suggested questions is included.

5. Having students finalize their portfolios for the year by reconsidering previous choices. This process resulted in increasing students' ownership of their work and relying on themselves and peers for assistance in improving their work.

Thinking Together About Portfolios, Roberta Camp, The Quarterly of the National Writing Project (Spring 1990) and the Center For The Study of Writing, 5513 Tolman Hall, School of Education University of California, Berkeley, CA 94720, (415) 643-7022. (TC#470.6THITOA)

The author discusses a collaborative effort in Pittsburgh to discover effective portfolio systems. The author first traces recent advances in research and practice that have lead to the search for innovative assessment practices. Then she discusses some of the results of the collaborative effort. Some of these include:

1. An emerging "definition" of a portfolio which includes: multiple samples of classroom writing, collected over a period of time: evidence of the processes and strategies that students use in creating at least some of those pieces of writing; and evidence of the extent to which students are aware of the processes and strategies they use and of their development as writers.

2. Identification of characteristics that help create a classroom climate conducive to portfolios: student choice in their own work, reduced emphasis on "right answers," and encouraging discovery and risk taking; creating a long-term view of classroom work: student self-reflection; and students becoming more active learners by developing their own internal criteria for writing.
3. A portfolio system developed by a process that models the collaboration in learning that is desired in the classroom: teachers develop their ideas together through self-reflection.

The author hopes that continuing conversations between teachers will lead to more consistent portfolios across classrooms as teachers develop a shared view of writing instruction; and will lead to more ideas on how to get students to choose pieces of work that do not in themselves show students to best advantage, but rather show how students have struggled with writing and learned from their struggles.


This paper describes the writing portfolio project in the Pittsburgh Public Schools. The content is very similar to that in the three papers presented above. The author's basic premise is that because of recent changes in our view of what education is and what writing is, the task of writing teachers becomes that of helping to support the self-learner, the learner whose responsibility is ultimately his own for making meaning. The Pittsburgh project addressed both how to support such goals and how to assess them. The intent of their portfolio project is to support the self-discovery of the student as a writer.

Although much of the paper describes the same process as the above three papers, there is some additional detail. Specifically:

1. How the portfolio process is introduced to the students at the beginning of the school year.
2. Additional examples of self-reflection questions.
3. Additional information about the final portfolio.

*Record of Student Performance,* Community Experiences For Career Education, Inc., 11850 S.W. King James Place, Tigard, Oregon 97223, (503) 639-8850. (TC#220.3RECOFS)

Community Experiences For Career Education (CE) is an alternative high school program which offers students aged 16 through 18 a comprehensive secondary school experience through involvement on community and commercial sites. Students pursue a full-day learning program designed to meet their individual academic and career development needs. Students do not attend standardized courses, nor do they receive grades or time-bound credits. Successful completion of the program qualifies the student for a standard high school diploma.

Student accomplishments are documented using a portfolio with certain specified elements. This portfolio is used for job application or educational placement. Content includes:

1. "Certification of Student Performance." This is a form that summarizes the projects, competencies, explorations, work experience, and basic skills completed by the student each year. Staff comments are included.
2. More detail on accomplishments. This information is summarized on a series of forms covering basic skills, life skills, citizenship competencies, career development, and skills development. The forms are completed by various individuals including project staff, employers, and community workers.
Information might include the dates that various projects were completed (e.g., "legislature project, 4/18/74"); competencies that were demonstrated (e.g., "maintain a checking account, 9/25/73"); time spent exploring job options (e.g., "city maintenance dept., 9/13/74"); and test scores.

3. "School Placement Information." This is a form which translates the previous projects into more traditional subject area equivalent grades.

4. Student comments.

5. Letters of recommendation and transcripts from other places.

Most of the information is descriptive of the tasks or projects completed by the student. Although judgments of quality of student efforts are implied, there are no specified criteria for these judgments.

The Senior Project, Jay Monier, Far West EDGE, Inc., 1817 Woodlawn Ave., Medford, Oregon 97504, (503) 770-9483, 1990. (TC#150.6SENPRO)

This packet of papers includes an overview of the Senior Project, several articles written about it, and several pages from the Senior Project Student Manual.

The senior project requires the following: a research paper on a topic chosen by the student; a project that applies the knowledge gained during the research phase; and a 6-10 minute oral presentation about the research and project. Graduation depends on successful completion of all three parts of the Senior Project.

The Senior Project Student Manual provides assistance to the student on planning and carrying out the project. Only part of this manual is included in this packet. Included are documents for helping students to plan their project; and documentation and rating forms that must be included in the final Project Portfolio. The Coordinator's Handbook contains instructions for the oral presentation portion of the project. This document is not included in the packet.

Video Report Cards Provide Comprehensive Evaluations, Don Sneed and Tim Wulffmeyer, Educator, Winter 1990, 44, pp. 50-56. (TC#150.6VIDREC)

This article reports on pilot testing video report cards for college journalism students. Each video was produced by the instructor and contained:

1. An overview of the course and the rationale for the video report card. This information was the same for each student.

2. Excerpts from class activities -- clips from field trips, guest speakers, reviewed books, movies, concerts, and art exhibits. This was the same for each student.

3. Copies of graded papers with a discussion of the strengths and weaknesses of a student's writing, suggested areas that needed improvement, cited areas where improvement had occurred, effective aspects, and identified problems with writing mechanics, story organization, information gaps, or unanswered questions. This was individualized for each student.

4. Other pertinent information such as late assignments, lack of effort, absenteeism, and perceived underachievement. This was individualized for each student.
There was a generally favorable response from the parents of students receiving these video report cards.

The next set of documents were all generated as part of the teacher assessment and certification project at Stanford University. Two assessment approaches were examined: portfolios and assessment center exercises. The papers below discuss these and the relationship between them. There are additional documents available from Stanford.

**Elementary Literacy Assessment Center Examiner's Handbook, Teacher Assessment Project, 1989, Stanford University, School of Education, CERAS 507, Stanford, California 94395, (415) 725-1228. (TC#130.4ELELIA)**

The goals of the Assessment Center are to develop performance exercises to assess a teacher candidate's knowledge, skills and dispositions as a Board certifiable teacher of elementary literacy. This document is the manual used to train evaluators who rated teacher performances during the field test of Literacy Assessment Center exercises.

The manual describes six performance-type exercises related to three strands: assessment of students, integrated language arts instruction, and creating a literate environment. Some of the exercises draw on literacy portfolios previously developed by the teacher candidates. Others are stand alone exercises that simulate teaching situations and are independent of the portfolio entries.

Descriptions of the exercises and rating forms used to judge performance are provided.

**Portfolio Development Handbook for Teachers of Elementary Literacy, 1988, Teacher Assessment Project, Stanford University, School of Education, CERAS 507, Stanford, California 94395, (415) 725-1228. (TC#130.4PORDEH)**

This document is the handbook for grade 3 and 4 teachers to use in developing their own literacy portfolios in reading comprehension and composition. For this purpose, a portfolio is defined as a collection of documents that provide evidence of the knowledge, skills and dispositions of an elementary teacher of literacy. Specifications for portfolio entries include four items that relate to integrated language instruction, three that relate to creating a literate environment, and four about assessment of students. Teachers may also present an open entry and a reflective interpretation of any and all entries. The handbook provides guidance on what these entries should be like and how to choose them.

The documents can take many forms, most of which are produced as a normal part of teaching. The assessment center described above provides the opportunity to examine the portfolio contents in depth.


In addition to providing a summary of the Teacher Assessment Project, this paper discusses many of the practical issues that were considered in designing, implementing and evaluating the schoolteacher's portfolio.
The Schoolteacher's Portfolio: An Essay on Possibilities, Tom Bird, 1988, Teacher Assessment Project, Stanford University, School of Education, CERAS 507, Stanford, California 94395, (415) 725-1228. (TC#130.6SCHTP0)

Similar to the previous entry, this paper explores issues and considerations surrounding teacher portfolios: problems associated with borrowing the notion of "portfolio" from other fields, purposes that a teacher's portfolio might serve, local arrangements in which portfolios might be constructed, and how portfolios might be fitted to the work of teaching.

Thinking Out Loud: Proceedings of the Teacher Assessment Project Forum on Equity in Teacher Assessment, May 1988, Teacher Assessment Project, Stanford University, School of Education, CERAS 507, Stanford, California 94395, (415) 725-1228. (TC#130.6THIOUL)

This paper presents the reactions of seven educators to the work-in-progress of the Teacher Assessment Project.

Biology Candidate's Assessment Center Handbook, May 1989, Teacher Assessment Project, Stanford University, School of Education, CERAS 507, Stanford, California 94395, (415) 725-1228. (TC#130.4TIOCAA)

This handbook was designed to introduce teachers to the Assessment Center exercises in biology. There are three types of exercises: extensions of portfolio information gathered previously, performance of tasks using the information in the portfolio entry as a starting point, and stand-alone exercises that do not use portfolio entries. The tasks involve interviews, written answers and computer responses.

The individual exercises involve reviewing unit plans, discussing student evaluation, monitoring student laboratory work, analyzing alternative instructional materials, reviewing a videotape of an instructional situation, adapting a textbook chapter to one's needs, using the computer as an instructional tool, and discussing a teaching problem. The handbook describes these exercises and how performance will be evaluated.

Notes On An Exploration Of Portfolio Procedures For Evaluating High School Biology Teachers, Tom Bird, 1989, Teacher Assessment Project, Stanford University, School of Education, CERAS 507, Stanford, California 94395, (415) 725-1228. (TC#130.4NOTONA)

This article describes the work on portfolios done in the biology component of the Teacher Assessment Project through March, 1989. The preliminary content outlined for the portfolio includes seven "entries": a self-description of previous teaching background and current teaching environment; a unit plan; a log of student evaluation procedures; a description of a lesson in which a textbook is substantially supplemented or replaced with other materials; a videotape of a laboratory lesson; a log of professional interactions; and a log of community interactions. Candidates are given some choice as to which of these to include.

The article describes these "entries" in some detail, and adds information about considerations in developing them.
Articles cataloged between 8/1/90 and 10/31/90

Vermont Writing Assessment: The Pilot Year, Vermont State Department of Education, Montpelier, Vermont 05602, Fall 1990. (TC#470.3VERWRA2)

The Vermont pilot will include grade 4 and 8 students. Each student is to:

1. Keep a writing portfolio. Suggested minimum content of the writing portfolio include: a table of contents; a dated “best piece”; a dated letter explaining the choice of the best piece and the process of its composition; a dated poem, short story, play or a personal narrative; a dated personal response to a cultural, media or sports exhibit or event, or to a book, current issue, math problem or scientific phenomenon; dated prose from a subject area other than “language arts.” A sample of portfolios will be reviewed by a visiting review team using a fixed set of criteria. These criteria are included in the document.

2. Select a “best piece and write a letter about that piece.” The can come from any class. A teacher can help a student select this piece. The best piece will be assessed using a set of four provided criteria.

3. Write to a uniform writing prompt.

An extensive bibliography on writing instruction is included.

Full-Day Kindergarten First Year Results, Bill Auty, Corvallis School District, 1555 S.W. 35th St., Corvallis, Oregon 97333, 503-757-5855, Spring 1990. (TC#070.6FULDAK)

This paper reports the results of a study of a full-day kindergarten program for at-risk students. One part of this report contains representative samples of student writing from the beginning and end of the school year. Thus, the numerical information in the report is illustrated by actual student work.

Time to Replace the Classroom Test With Authentic Measurement, Alberta Journal of Educational Research, 36, 1990, pp. 78-84. (TC#470.6TIMTOR)

This article discusses the need for alternatives to standardized tests for use in the classroom. It briefly describes one possible “record of achievement,” or portfolio system. This requires that teachers set “good” writing tasks for students, preferably in cooperation with the students. Evaluation of individual entries is done cooperatively with the student. Grades may not be assigned to all entries. These records of student work should also be used in parent conferences.


This brief article outlines the authors’ perceptions of the characteristics that make the notion of portfolio assessment powerful. These characteristics are illustrated by samples from actual student portfolios. The eight characteristics are:

1. A portfolio must contain information that shows that a student has engaged in self-reflection.

2. Students must be involved in the selection of the pieces to be included.

3. The portfolio is separate and different from the student’s cumulative folder.
4. The portfolio must explicitly or implicitly convey the student’s activities.

5. The portfolio may serve a different purpose during the year from the purpose it serves at the end. At the end of the year, however, the portfolio may contain only materials that the student is willing to make “public.”

6. A portfolio may have multiple purposes.

7. The portfolio could contain information that illustrates growth.

8. The skills and techniques that are involved in producing effective portfolios do not happen by themselves. Students need models of portfolios and how others develop and reflect upon them.

The School Of Hard Knocks: A Study on the Assessment of Experiential Learning. Summary Report, Peter Thomson, TAFE National Centre for Research and Development, Payneham, Australia, 1988. ERIC ED 295 033. For full report see ERIC CE 050 244. Full report also available from Nelson Wadsworth, P.O. Box 4725, Melbourne, Victoria 3001, Australia. (TC#150.6THESCO)

This article describes a process for assessing adult learners’ life experiences for the purpose of granting them exemptions from formal course work. Applicants are assessed using portfolios, structured interviews, and on-the-job ratings. The first two are rated by a three-person panel with expertise in the area to be assessed and training in how to assess the portfolios and interviews.

The portfolio contains an autobiographical narrative, a statement on special competencies, assignments set by a tutor, work samples, testimonials, and references. These are assessed by checking the relevance of competencies claimed against course outcomes and objectives. The interview is structured and is assessed by using a checklist.

If provisional exemption from coursework is granted by the assessment panel, assessment of performance continues on the job in a variety of ways, depending on the area. These could include logs, supervisor ratings, oral tests, etc.

Exemption is finalized on the basis of successful progress through all the above stages. The summary document does not contain the actual checklists used.

Coding Journal Entries, Janice Evans Knight, Journal of Reading, 34, 1990, pp. 42-47. (TC#440.3CODJOE)

This article describes a system for coding reading journal entries to promote student self-reflection and improve reading strategies and comprehension. The impetus for this system came from the author’s observation that many reading journal entries were only superficial summaries of what was read.

Each journal entry is coded by the student and/or teacher as to the level of thinking, metacognitive strategies, and confusion the entry indicates. Examples of these three sets of codes are:

1. Level of thinking. Examples of codes here are “R” which means “recall,” and “*” which means inference, prediction, or cause and effect.

2. Metacognitive strategy. Examples are “S” which means “summarize,” and “SQ” meaning “self-questioning.”
3. Confusion. Examples are "0" meaning that the entry does not say anything significant, and "?" meaning that the entry indicates student confusion.

The power of this system is that the coding system is integrated with instruction so that students learn what good reading strategies are and then assess their own journal entries.


This document is a working draft describing the portions of student writing portfolios that should be transferred from one teacher to the next in grades 1-6.


The central consideration in this paper is how to design procedures for aggregating information from portfolios while preserving the integrity of the portfolio for instructional purposes. They propose that what needs to occur in order to aggregate is not the standardization of the specific pieces in the portfolio (e.g., an attitude checklist, one piece of persuasive writing, etc.), but a clear idea of the rationale for the portfolio, what processes or outcomes are to be demonstrated by the portfolio, and the standards or criteria for judging success. The actual exhibits can vary.

The authors propose that portfolios can be described along three dimensions:

1. Activity -- the operations involving putting together portfolios. This includes the rationale for the portfolio, the areas to be covered by the portfolio, the specific content to be in the portfolio, performance criteria for students, and how judgements will be made by students and/or evaluators.

2. History -- antecedents to the work in this year's portfolio and how the portfolio will be used in the future. This includes individual student baseline performance, learner characteristics and context; the encounters that occur around the portfolio itself; and the final status of student performance.

3. Stakeholders -- those individuals with an interest in the portfolio. These could include students, teachers, parents, and aggregators.

Several examples are presented that relate these dimensions to actual portfolio projects.

Pilot Project For Portfolio Assessment, Linda Lewis, Fort Worth Independent School District, Fort Worth, Texas, August 2, 1990. (TC#470.3PILPRF)

This paper describes a staff development exercise in which teachers brought six student writing folders and looked through them to answer the question: "If someone came into your room and wanted evidence of student growth in writing in ten specified areas, would your student folders provide this evidence?" The ten areas were district writing goals. The list of these ten goals is included.

Lewis & Clark College New Admissions Initiatives, Susan Resneck Parr, Vice President for Academic Affairs, Lewis & Clark College, Portland, Oregon 97219, 503-293-2653, 1990. (TC#000.6LEWANC)
Lewis & Clark College now offers two alternative options for admissions -- portfolios and a Saturday Seminar. The portfolio option requires that students submit materials which demonstrate that they meet the college's criteria for admission. Suggestions are:

1. Products that demonstrate intellectual growth and an ability to write clearly and think critically. These could include, for example, a series of papers or tests that show growth; or science projects, mathematical proofs, computer programs, audio tapes of performances, etc. to show accomplishment of advanced skills.

2. An official high school transcript.

3. A letter from a high school counselor or principal certifying that the work is one's own.

4. Three sealed letters from recent teachers assessing one's academic abilities.

5. The first page of a standard admissions application.

6. Other pertinent information such as standardized test scores, additional recommendations from teachers and others, a statement of academic goals and interest, and an admissions essay.

The Saturday Seminar for Early Decision is designed for students certain they wish to become Lewis & Clark students. The program includes a weekend visit, participation in a seminar, an interview with an admissions counselor, an opportunity to talk to a financial service counselor, and invitations to social events. They also must submit either a regular admissions application or a portfolio.

In the materials we obtained there is no discussion of how portfolio or seminar performances would be assessed.

Assessment Principles, Grant Wiggins. CLASS Training Materials, 56 Vassar, Rochester, NY 14607, 716-244-8538, 1990. (TC#150.6ASSPRI -- Available only from author).

This document is an excerpt from training materials used by Grant Wiggins. It includes the defining characteristics of "authentic" assessment, principles for designing good performance assessments, 28 examples of performance assessment tasks from various school districts and state departments of education, and 15 examples of scoring procedures. Please contact the author for additional information.


This paper discusses a management effectiveness strategy that can be employed by secondary classroom reading teachers to facilitate and improve learning by those students whose reading skill needs are severely deficient. The strategy includes assessment, folders, individualized programs, mini-group lessons and scoring.

The folder is student managed and includes: the available materials for the student to use to learn certain skills; a percentage chart so that students can compute their own percentage of accuracy on each lesson; a progress chart for each skill so that students can see their progress; an evaluation sheet that lists the requirements to be met by the student; and other material as needed. Students and teachers evaluate (score) the work and plot progress.
The Northwest Regional Educational Laboratory (NWREL) is an independent, nonprofit research and development institution established in 1966 to help others improve outcomes for children, youth, and adults by providing R&D assistance to schools and communities in providing equitable, high quality educational programs. NWREL provides assistance to education, government, community agencies, business, and labor by:

- Developing and disseminating effective educational products and procedures
- Conducting research on educational needs and problems
- Providing technical assistance in educational problem solving
- Evaluating effectiveness of educational programs and projects
- Providing training in educational planning, management, evaluation, and instruction
- Serving as an information resource on effective educational programs and processes, including networking among educational agencies, institutions, and individuals in the region

Board of Directors

<table>
<thead>
<tr>
<th>Barbara Bell</th>
<th>William Hensley</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attorney</td>
<td>Northwest Alaska</td>
</tr>
<tr>
<td>Great Falls, Montana</td>
<td>Native Association</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>George Benson</th>
<th>Steve Hole</th>
</tr>
</thead>
<tbody>
<tr>
<td>Superintendent</td>
<td>Alaska Acting Commissioner</td>
</tr>
<tr>
<td>Centennial School District (Oregon)</td>
<td>of Education</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Judith Billings</th>
<th>Shirley Holloway</th>
</tr>
</thead>
<tbody>
<tr>
<td>Washington Superintendent</td>
<td>Associate Professor</td>
</tr>
<tr>
<td>of Public Instruction</td>
<td>University of Alaska, Anchorage</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Jacob Block (Vice Chairman)</th>
<th>Jerry Jacobson</th>
</tr>
</thead>
<tbody>
<tr>
<td>Superintendent</td>
<td>Idaho Falls School District (Idaho)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Raina J. Bohanek</th>
<th>Homer Kearns</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher</td>
<td>Superintendent</td>
</tr>
<tr>
<td>Coeur d'Alene School District (Idaho)</td>
<td>Salem-Keizer School District (Oregon)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Catalino Cantero</th>
<th>Nancy Keenan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assistant to the Secretary for Education</td>
<td>Montana Superintendent of Public Instruction</td>
</tr>
<tr>
<td>Federated States of Micronesia</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Marcia Christian</th>
<th>William Hensley</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher</td>
<td>Northwest Alaska</td>
</tr>
<tr>
<td>Battle Ground School District (Washington)</td>
<td>Native Association</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Jerry L. Evans</th>
<th>John Kohl</th>
</tr>
</thead>
<tbody>
<tr>
<td>Idaho Superintendent of Public Instruction</td>
<td>College of Education</td>
</tr>
<tr>
<td></td>
<td>Montana State University</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Allen Glenn</th>
<th>Laurie A. Lamson</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dean, College of Education</td>
<td>Deputy Director</td>
</tr>
<tr>
<td>University of Washington</td>
<td>Montana Job Training Partnership, Inc.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>James E. Harris</th>
<th>Rosiland Lund</th>
</tr>
</thead>
<tbody>
<tr>
<td>First Interstate Bank</td>
<td>Teacher</td>
</tr>
<tr>
<td>Portland, Oregon</td>
<td>Hillside Union High School District (Oregon)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Marlys Henderson</th>
<th>Zola McMurray</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher</td>
<td>Business Woman</td>
</tr>
<tr>
<td>Fairbanks School District (Alaska)</td>
<td>Lewiston, Idaho</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Barbara Bell</th>
<th>Joe McCracken</th>
</tr>
</thead>
<tbody>
<tr>
<td>Attorney</td>
<td>Superintendent</td>
</tr>
<tr>
<td>Great Falls, Montana</td>
<td>Lockwood Elementary District (Montana)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Judi Billings</th>
<th>Shirley Holloway</th>
</tr>
</thead>
<tbody>
<tr>
<td>Washington Superintendent</td>
<td>Associate Professor</td>
</tr>
<tr>
<td>of Public Instruction</td>
<td>University of Alaska, Anchorage</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Jacob Block (Vice Chairman)</th>
<th>Jerry Jacobson</th>
</tr>
</thead>
<tbody>
<tr>
<td>Superintendent</td>
<td>Idaho Falls School District (Idaho)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Raina J. Bohanek</th>
<th>Homer Kearns</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher</td>
<td>Superintendent</td>
</tr>
<tr>
<td>Coeur d'Alene School District (Idaho)</td>
<td>Salem-Keizer School District (Oregon)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Catalino Cantero</th>
<th>Nancy Keenan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assistant to the Secretary for Education</td>
<td>Montana Superintendent of Public Instruction</td>
</tr>
<tr>
<td>Federated States of Micronesia</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Marcia Christian</th>
<th>William Hensley</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teacher</td>
<td>Northwest Alaska</td>
</tr>
<tr>
<td>Battle Ground School District (Washington)</td>
<td>Native Association</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Jerry L. Evans</th>
<th>John Kohl</th>
</tr>
</thead>
<tbody>
<tr>
<td>Idaho Superintendent of Public Instruction</td>
<td>College of Education</td>
</tr>
<tr>
<td></td>
<td>Montana State University</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Allen Glenn</th>
<th>Laurie A. Lamson</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dean, College of Education</td>
<td>Deputy Director</td>
</tr>
<tr>
<td>University of Washington</td>
<td>Montana Job Training Partnership, Inc.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>James Scott</th>
<th>Rosiland Lund</th>
</tr>
</thead>
<tbody>
<tr>
<td>Headmaster</td>
<td>Teacher</td>
</tr>
<tr>
<td></td>
<td>Hillside Union High School District (Oregon)</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Brian Talbott</th>
<th>Zola McMurray</th>
</tr>
</thead>
<tbody>
<tr>
<td>Superintendent</td>
<td>Business Woman</td>
</tr>
<tr>
<td></td>
<td>Lewiston, Idaho</td>
</tr>
</tbody>
</table>

Northwest Regional Educational Laboratory
101 S.W. Main Street, Suite 500
Portland, Oregon 97204
(503) 275-9500
GTE: NWRELLAB FAX: (503) 275-9489