Inspired by the researcher's interest in the subject, but also in response to state-mandated assessment, Virginia Military Institute (VMI) initiated a pilot program to evaluate the portfolio method of teaching writing. Half of VMI's English department used the portfolio approach, while the other half applied other teaching methods. Prior research suggested that the portfolio approach should increase both writing skill and efficacy because it: (1) encourages revision skills development; (2) allows students to set goals; (3) promotes long-term effort; (4) involves self-assessment; and (5) evaluates students on the basis of their best work. Results of the study indicated that efficacy varied according to grade and also, to a large extent, according to whether a given student was in a portfolio class. Portfolio students felt more confident than other students in their writing abilities in several specific areas. Motivational and behavioral factors were more significant in portfolio than in non-portfolio classes. The portfolio method seemed to tap metacognitive skills. There seemed to be correlations with learning styles in portfolio classes only. Educators need to find more ways of helping students to develop self-monitoring abilities. Because the portfolio method lends itself well to individualized instruction, it may offer teachers an excellent opportunity to improve the writing skills of all students. (Eleven tables are included; 30 references are attached.) (SG)
The Relationship between the Portfolio Method of Teaching Writing and Measures of Personality and Motivation

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1991 Conference on College Composition and Communication, Boston

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The Relationship between the Portfolio Method of Teaching Writing and Measures of Personality and Motivation

Introduction

What is so wonderful about the portfolio method of teaching writing? If you ask this question of instructors who use this approach, you will probably be told the following:
1. This method greatly enhances the students' ability to revise their essays.
2. Professors Belanoff and Elbow, and others, would tell you that this method increases the sense of "collaboration and community" among both instructors and students.
3. Since the portfolio teachers are coaches more than judges, they can foster positive relationships with students.
4. These improved relationships, you will probably be told, inspire the students to adopt good attitudes toward writing instruction and toward themselves as writers. As the students work with peers and instructors to revise their writing, their confidence in their ability to improve their own writing increases. Students creating a course portfolio, you may be told, take great pride in their work and consequently put much more time into their writing than they would in a course in which
this method is not used.

5. Finally, the portfolio advocates may tell you that when their students leave their composition courses, they take with them new senses of control over their own writing and strong desires to continue to grow as writers.

   To those who are not in the portfolio fold, all of this may sound too good to be true. And even those in the fold may be a bit skeptical at times.

   In this presentation I am going to describe a program that is designed to see whether some of these claims about portfolios are in fact true.

**Background**

The development of this program at Virginia Military Institute was inspired by my interest in this subject--and by that of my co-author as well--but it was also "inspired" by necessity. In Virginia, we are facing State-mandated assessment, and this program is also a response to that mandate. The State is encouraging us to adopt assessment plans that can be integrated into our curriculum and ones that will enable us to evaluate our programs in helpful ways.

   When trying to determine the best way to respond to State-mandated assessment, our department preferred portfolios but was concerned about the lack of research to support this preference.
We decided to create a program that would allow us to evaluate the effectiveness of portfolios as a method of instruction and assessment. For the purposes of this program, one-half of the department uses the portfolio approach while the other half continues to teach as they have in the past. Students are randomly assigned by the Registrar to a portfolio or non-portfolio class for the first term; for the second term, the portfolio students are randomly assigned to portfolio classes and the non-portfolio students to non-portfolio classes. This arrangement enables us to evaluate our pilot program by comparing students in portfolio classes with those in traditional ones over the period of one year. Of course, we realize that the research design is not perfect, but it almost never is in such kinds of educational research--because all things cannot be equal when you are dealing with human beings in educational settings--but we have tried to make all things as equal as possible.

For instance,
1. The faculty members in the portfolio group vary in ages and areas of expertise.
2. We have men and women--as instructors--in both non-portfolio and portfolio sections.
3. We made sure that students are of equal ability--they should be because they are randomly assigned--but we checked scores on skills tests, too.

As I discussed portfolio assessment with the Director of
Assessment, my co-author, I described what I believed to be the strengths of this method. We noticed that many of the presumed advantages relate to matters of motivation, and therefore decided to focus our study on the relationship between portfolio instruction and measures of motivation, learning styles, and personality.

Self-efficacy

Presently the most important part of our study has focused on the concept of self-efficacy because many of the presumed positive effects of the portfolio approach are closely related to what Albert Bandura and others have identified in their research as increases in perceived self-efficacy (or perceptions of self-efficacy).

**Overhead # 1**  Definition of self-efficacy
Self-efficacy refers to a student's confidence in his or her ability to perform tasks, particularly when those tasks involve novel features.

**Overhead # 2**
According to social learning theory, people assess their abilities by cognitively appraising the following:
1. past experiences
2. vicarious experiences
3. social influences (e.g., verbal encouragement)
4. physiological states.

Self-efficacy is of interest to instructors because it significantly influences students' performance.

**Overhead # 3:**
According to Bandura, judgments of self-efficacy affect the following:
1. choice of tasks
2. amount of effort expended
3. length of time devoted to tasks.

**Overhead # 4:**
Bandura:
"If self-efficacy is lacking, people tend to behave ineffectually even though they know what to do."

Wood and Locke:
"Self-efficacy has a significant relationship to academic performance (even with ability controlled)."
Perceived Writing Efficacy

Shell, Murphy, and Bruning as well as McCarthy, Scott, and Rinderer found that perceived writing efficacy significantly affects students' writing. In their article "Self-Efficacy and Writing: A Different View of Self-Evaluation" (CCC, December 1985), McCarthy, Scott and Rinderer suggested that their conclusions might help explain the findings of those researchers (Beach, Perl, Pianko, Flower and Hayes, and Sommers) who have demonstrated that poor writers limit the tasks that they set for themselves as they compose and revise. They (McCarthy, Scott, and Rinderer) hypothesized that because these students lack confidence in their writing ability, they shy away from complexity in subject matter and rhetorical strategy. Having studied a group that included many basic writing students, these authors concentrated on mechanical skills but suggested that future writing efficacy inventories include a large range of questions concerning the composing process. Studying the numerous tasks involved in this process is very important if we are to understand the full connection between perceived writing efficacy and writing performance. We attempted to cover many composing and revising skills in our study. Furthermore, we hypothesized that exploring the relationship between efficacy and portfolio instruction would yield valuable information about a pedagogical method often praised for its sensitivity to the complexities of the writing process.
Portfolios and Perceived Writing Efficacy

Considering the research on revision strategies, portfolios, and perceived efficacy in writing and other fields, we conjectured that the portfolio method would increase perceived writing efficacy, independently of feedback such as grades, because this approach seems to do much to build the students' confidence in themselves as writers.

Overhead # 5

The portfolio approach should increase both skill and efficacy levels because it:

1. encourages the development of revision skills,
2. allows students to set short-term as well as long-term goals,
3. promotes long-term effort,
4. involves self-assessment,
5. evaluates students on the basis of their best work.

To test these assumptions about portfolios and perceptions of writing efficacy, we designed an inventory consisting of twenty-four questions about various tasks involved in writing and revising essays. Since our composition courses are literature based, we also included questions about literary analysis. To indicate their
level of confidence in their ability to perform each task, the
students were asked to rate themselves between 1 and 5, one being
complete uncertainty and 5 being complete certainty.

This inventory was administered to pilot portfolio classes
last year (and we found that the portfolio grade was correlated
with increases in perceptions of writing efficacy).

Then, this year, the first year of the study comparing
portfolio and non-portfolio classes, the inventory was given at the
beginning of the year--before the students were assigned to classes
and then at the end of the semester. It will be given again at the
end of this spring term. Professors were given instructions
concerning how to administer the inventory and students were
assured that instructors would not see their inventories until
final grades were turned in to the registrar--all precautions
designed to make the study as accurate as possible.

We did not expect all items to be affected by the kind of
instruction; for instance, we did not expect items concerning
literature to vary from one group to the other.

Results of Study:

We found that the change in efficacy varied according to grade
and according to whether the students were in portfolio or
non-portfolio classes on many (but not all) of the items that we
expected it would. The following items were the ones in which
there was a significant difference (.01 level) between the two groups in the change scores:

Overheads # 6 AND # 7.

How confident are you that you can develop a clear, reasonable thesis (central idea) in an essay?

How sure are you that you can write an appropriate topic sentence for a paragraph?

How sure are you that you can write a paragraph that focuses on its topic sentence?

How confident are you that you can write grammatically correct sentences?

How confident are you that you can vary sentence patterns in your writing?

How confident are you that you can research a topic and then write an essay that develops a clear, reasonable thesis based on what you learned from that research?

How confident are you that you can describe in writing the strengths and weaknesses of a classmate's essay?

How confident are you that you can describe in writing the strengths and weaknesses of one of your own essays?

Some other items were close. One that we expected to show a significant difference was the question about their confidence in their ability to revise; it did not, even though the questions
about describing the strengths and weaknesses of their own writing and their classmates' writing were significant. We can speculate on the reason for this item not showing a significant difference: perhaps the students in the portfolio classes now realize all that is necessary to revise a paper. Perhaps we need to be more specific in the question. There are, of course, many factors to consider.

**Other Measures**

When the students enter VMI, they are given a whole battery of tests including a learning-thinking style inventory, a test of locus of control, a general efficacy inventory, the Myers-Briggs Type Indicator, in addition to skills tests like the Academic Profile (ETS) [Incidentally, there was no correlation between the portfolio grade and the score on the writing section of the ETS Academic Profile.]

As we studied the correlations between the measures of personality and motivation and the portfolio grades, we found further evidence suggesting that there is a relationship between this portfolio method and motivational and behavioral factors.
Overhead # 8  Correlations between Grades and Scores on Tests of Academic Anxiety and of General Efficacy

<table>
<thead>
<tr>
<th></th>
<th>Debilitating Anxiety</th>
<th>Efficacy</th>
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<tbody>
<tr>
<td><strong>Portfolio Classes:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Final Grade</td>
<td>-.40**</td>
<td>.33*</td>
</tr>
<tr>
<td>Portfolio Grade</td>
<td>-.38**</td>
<td>.32*</td>
</tr>
<tr>
<td><strong>Non-Portfolio Classes:</strong></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Final Grade</td>
<td>-.05</td>
<td>.14</td>
</tr>
</tbody>
</table>

As we would predict, there is a negative correlation between academic anxiety and the portfolio grade and course grade; in the non-portfolio classes, there is no significant correlation.

Similarly, there is a positive correlation in the portfolio classes between general efficacy and portfolio and course grades. There is no significant correlation in the non-portfolio classes.

Of course, more research is needed, but we might tentatively conclude that motivational factors (good and bad ones) are brought to bear in a portfolio class more than they are in a non-portfolio class.
Correlations between Grades and Scores on Test of Locus of Control

<table>
<thead>
<tr>
<th></th>
<th>Self-Control</th>
<th>Fatalism</th>
<th>External</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Portfolio Classes:</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Final Grade</td>
<td>.31*</td>
<td>-.38**</td>
<td>-.33*</td>
</tr>
<tr>
<td>Portfolio Grade</td>
<td>.29*</td>
<td>-.40**</td>
<td>-.39**</td>
</tr>
</tbody>
</table>

|                         |          |          |          |
| **Non-Portfolio Classes:** |          |          |          |
| Final Grade              | -.02     | -.06     | -.06     |

Again, the portfolio method seems to be tapping these behavioral traits—feelings concerning the locus of control are brought to bear with this method.

Correlations between Grades and Scores on Tests of Metacognition

|                         |          |          |          |
| **Portfolio Classes:**  |          |          |          |
| Final Grade             | .37**    |          |          |
| Portfolio Grade         | .33**    |          |          |

|                         |          |          |          |
| **Non-Portfolio Classes:** |          |          |          |
| Final Grade              | .06      |          |          |

1-tailed significance: *=.01  **=.001
We can see that the portfolio method seems to be tapping metacognitive skills--i.e. the students' ability to internalize information, choose strategies, monitor their own thinking processes. [There was no difference in the mean score of those in the portfolio vs. non-portfolio group on the test of metacognition when they took the test--took it before classes began.]

Overhead # 11  Relationship between MBTI Learning Styles and the Method of Teaching Writing

Mean Grades in English 101 for Extrovert/Sensing vs. Introvert/Intuitive Learning Styles

<table>
<thead>
<tr>
<th></th>
<th>Portfolio</th>
<th>Non-Portfolio</th>
</tr>
</thead>
<tbody>
<tr>
<td>ES</td>
<td>1.77</td>
<td>2.35</td>
</tr>
<tr>
<td>IN</td>
<td>3.10</td>
<td>2.86</td>
</tr>
</tbody>
</table>

Again, while the non-portfolio classes show no correlations with learning styles, we see there are correlations in the portfolio classes. Personality traits and learning styles are more strongly tapped in the portfolio classes--for better or worse. IN's always do better than ES's but can see here that if they are in a portfolio class the grades vary more than they do in the non-portfolio class.

What does this mean? We can see that the non-portfolio
classes have a kind of leveling effect. This suggests that factors of personality are not brought to bear at all—for good or bad. If they are brought to bear in a portfolio class, we could hypothesize that this is the case because instruction is more individualized.

Conclusion

What we might hypothesize from the data that we have gathered thus far is that the portfolio method of instruction is having a significant effect on students’ perception of their ability to perform certain writing tasks and that this method is tapping personality and motivational traits in a way that conventional instruction cannot. This method—perhaps more than other approaches—seems to involve and emphasize self-monitoring skills, and these skills are being brought to bear in portfolio classes. Our findings thus suggest what portfolio instructors assume to be the case: this method asks the students to employ their metacognitive skills more than other approaches do. Of course, more research is needed to see whether this conclusion is justified.

Furthermore, we need to find more ways of helping students lacking in these skills to develop this self-monitoring ability. We plan to do further research in the area of metacognition and learning styles and hope to devise methods of tailoring portfolio instruction to the particular learning styles of all students.
Since the portfolio method lends itself very well to individualized instruction, we think that it may offer teachers an excellent opportunity to improve the writing skills of all of their students.


Shell, Duane F. et al. "Self-Efficacy and Outcome Expectancy: Motivational Aspects of Reading and Writing Performance." Annual Meeting of the National Reading Conference. Austin, 2-6 December 1986. ERIC ED 278 969


