Self-Efficacy and Writing: A Different View of Self-Evaluation

Patricia McCarthy, Scott Meier, and Regina Rinderer

Both in our teaching and in our research, self-evaluation is coming to be recognized as an important facet of the writing process. Donald Murray first opened our eyes to the importance of self-evaluation when he described how he conducts a writing conference. One of the first questions he asks when a writer turns in a piece is "How do you feel about it?" He then goes on to ask a series of questions that encourage the writer to assess the strengths and weaknesses of the work. In a recent CCC article, "How Writers Evaluate Their Own Writing" (CCC, May, 1982), Susan Miller similarly stresses that self-evaluation is an essential step in effective writing processes. Several other composition researchers including Beach, Perl, Pianko, Flower and Hayes, and Sommers have demonstrated that assessment of one’s written work can influence its quality.¹

These authors have focused on a type of self-evaluation that is fairly "situation-specific," i.e., one in which the individual judges a particular piece of work according to some standards of effective writing. It is our contention that another type of self-evaluation, assessment of one’s ability to write effectively, also plays an important role. In a research project on which the three of us collaborated, we found a strong relationship between writers’ evaluations of their own general writing skills and the overall quality of their written products. In our work, we defined self-evaluation as assessment of "self-efficacy," a construct described and studied by social learning theorist Albert Bandura.² Bandura’s self-efficacy theory is a model he formulated to help him explain and change various human behaviors, from controlling weight to alleviating fears. Self-efficacy theory guided our research and confirmed for us the importance of evaluation of their own writing skills to the writing performance of college freshmen.

In his self-efficacy theory, Bandura distinguishes between outcome expecta-

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tions and efficacy expectations, a distinction which may have important bearing on understanding how students learn to write. He suggests that individuals will perform a task successfully if they know what behaviors will produce desired outcomes and if they evaluate themselves as capable of performing the necessary behaviors. In this way, a student might know what is expected in an effective piece of writing and might even know the steps necessary to produce such a piece. But if the person lacks the belief that he or she can achieve the desired outcome, then effective behavior will likely not result.

There is no simple causal link, however, between self-evaluation and performance. When performance improves, belief in one's abilities increases, as Shaugnessy and others have also suggested.3 Similarly, when belief increases, performance improves. In Bandura's terms, evaluations about one's abilities (efficacy expectations) develop as individuals attempt a behavior and receive feedback about the quality of their performance. Furthermore, efficacy expectations lead to performance, followed by feedback and further development of expectations. Individuals with strong efficacy expectations evaluate themselves as capable, while individuals with weak efficacy expectations evaluate themselves as less capable of effective performance. Efficacy, then, can affect what behavior people will attempt in the first place and how long they will persist in the face of obstacles.

Various studies of behavior change have demonstrated a significant relationship between perceptions of self-efficacy and academic behavior. In a study by psychologists Meichenbaum and Smart,4 academically borderline freshman engineering students were given pseudo-tests allegedly identifying them as "late bloomers." These students went on to earn higher grades in two of four subsequent science courses. This "Pygmalion effect" has been well-documented. If belief so strongly influences behavior, it seems that the theory of self-efficacy could have powerful implications for student writing. If writing difficulties result not only from an inability to solve writing problems, but also from one's own decision that one is unable to solve them, then one important step in improving writing would be to strengthen individuals' efficacy expectations about their writing ability.

The major purpose of our research was to examine whether the strength of efficacy expectations is related to quality of writing. Our secondary purpose was to try to provide a more complete picture of the psychological variables related to effective writing. Therefore, we studied three other psychological variables which Bandura has connected with self-efficacy and which composition researchers have studied, either directly or indirectly—"anxiety," "locus of control," and "cognitive style." Before turning to our hypotheses and findings, let us first briefly describe these other three variables and discuss their connection with both efficacy and writing.

Anxiety. Bandura has suggested that high anxiety (an intense feeling of uneasiness) is correlated with weak efficacy expectations, which lead to poor performance. In several studies, Miller and Daly have demonstrated a similar link
between anxiety in the form of writing apprehension (distress experienced in anticipation of writing) and quality of writing.\textsuperscript{5} Individuals with greater writing apprehension tend to be less effective writers, while those with less apprehension are better writers.

\textit{Locus of Control}. This term designates individuals' general beliefs about whether the rewards and punishments in their lives are controlled by themselves or are controlled by external agents such as fate, luck, or other people. We postulated that individuals with strong feelings of self-efficacy should feel more self-directed because of their sense of their own capabilities and, therefore, that they should be more internally controlled. Furthermore, some composition researchers, using different terminology, have suggested links between perceived locus of control and effectiveness of a person's writing. For example, Flower and Hayes have noted that better writers give themselves larger writing problems to solve. They determine their "own set of goals, purposes, or intentions" in order to define for themselves and tackle the full rhetorical situation,\textsuperscript{6} rather than allowing the external assignment to control them. In other words, better writers appear to be more self-directed or more internally controlled. They examine "what it is they want to write," rather than attempting to please external authorities. They take active control of their writing. Similarly, authors who report the value of encouraging writers to take charge of their own writing (see note 1) may well be urging the same behavior that psychologists advise when they suggest that people assert internal control of their lives.

\textit{Cognitive Processing of Information}. The work of Flower and Hayes, Lunsford, de Beaugrande, and others (see note 1) clearly suggests that a cognitive style of "deep" information processing is related to effective writing. "Deep" processors are abstract thinkers who look for meaning in information, compare and contrast ideas, and evaluate information, as opposed to "shallow" processors, who simply memorize material. Deep processors are able to attend to subtle nuances in information and retain information longer in memory. A deep style of processing may also be necessary for forming strong perceptions of self-efficacy. Because deep processors are such "thoughtful" learners, they would be expected to store more accurate self-evaluations and retain this information longer in memory. Furthermore, because research has shown that deep processors are more successful in academic tasks,\textsuperscript{7} they would be expected to have strong efficacy expectations about writing, based on their past successes, which would lead to better writing.

In two separate studies, we tested the following hypotheses:

1) Students who evaluate themselves as capable of performing various writing tasks and feel fairly certain about their self-evaluation, i.e., those with strong efficacy, will be better writers than students with weak efficacy.

2) Students who experience less anxiety will be better writers than students who are highly anxious.

3) Students who are more inclined to believe that their locus of control is
internal will be better writers than students who are more inclined to believe that control is external.

4) Students who are deep information processors will be better writers than students who are shallow processors.

In our research study, we assessed the writing of 137 freshmen from beginning writing courses at Southern Illinois University in the fall term. We asked students to write in-class expository essays early in the term and again during final examinations. Where possible, topics making rhetorically similar demands were used at the beginning and at the end of the term. During the same class period in which they wrote the essay, or as close to the same session as technically feasible, we asked students to fill out various questionnaires: a Self-Assessment of Writing measure, described in Appendix A, that asks students to evaluate whether or not they think they can demonstrate 19 specific writing skills and to indicate their degree of certainty about each self-evaluation; a measure of anxiety, with instructions for students to report their feelings about writing; a questionnaire on their perceptions of locus of control; and an inventory that assesses whether they engage in deep or shallow cognitive processing.8

Four raters from the English Department, all experienced readers of freshman essays, analyzed the students' writing performance on the essays, using as criteria students' demonstrations of the 19 skills from the Self-Assessment of Writing measure. They made an analytical rating of each student's demonstration of the 19 skills. Degree of success in writing performance was thus defined as the number of writing abilities successfully demonstrated. Interrater reliability, calculated on a sample of data analyzed independently by each rater, was quite high (r = .92).

Because a large number of the students in the study were basic writing students, the self-assessment instrument and the raters' criteria were devised to measure the most mechanical and perhaps most easily measurable of writing skills. Examples of skills include: “Can you write an essay without major spelling errors?” “Can you write an essay without run-on sentences?” “Can you write an essay free of comma faults?” “Can you write an essay in which the ideas are clearly expressed?”

Of the four possible predictors of writing performance, strength of perceived efficacy, perceived locus of control, anxiety, and cognitive processing, only strength of perceived efficacy demonstrated a statistically significant effect in our step-wise regression analyses.9 More specifically, students with a strong sense of efficacy wrote better essays than students with a weak sense of efficacy. Because we experienced some problems with the testing conditions at post-test, we ran the experiment a second time in spring term, with a population of 60 students. This time our results showed that efficacy strength and anxiety were significantly related to writing performance at the pre-test; at post-test, only efficacy strength was significantly related to performance in...
writing. Students with strong efficacy were better writers; and less anxious students were better writers.

Thus, efficacy strength showed the strongest relationship to writing in our two studies. Although our findings are by no means definitive, they do indicate that evaluation of one's writing abilities is connected with the quality of written products. Our research offers one possible explanation for the findings of Beach, Perl, Pianko, Flower and Hayes, and Sommers (see note 1), who have demonstrated that weak writers do not take advantage of the full range of opportunities and choices available in composing or revising their work. Our results suggest that some writers may negatively evaluate themselves and their own capabilities. Such a narrow view would naturally lead them to use limited rhetorical strategies because they would not see themselves as being capable of anything complex.

It is worth noting that we examined self-efficacy and several psychological variables in relation to the written product. We would envision the next stage in our research to be an examination of the connection between self-efficacy, the strongest of our predictor variables, and a writer's composing process. The crucial question seems to be: do writers with strong self-efficacy behave differently as writers from those with weak self-efficacy? Their written products suggest that they do. What in fact do they do differently from those with weak self-efficacy? Do they take more notable risks with their writing? Do they take greater control over their planning? Do they continue in the face of obstacles when writing and, thus, exert more control over their work?

Additional questions on rhetoric may tell us even more about a writer's sense of self-efficacy. We see a need to include in future measures of self-efficacy some questions about composing processes, such as "Can you generate ideas for writing?" and questions on rhetoric, such as "Can you write in a variety of language styles to a variety of audiences?" and "Can you adjust the tone of an essay to meet the needs of a given writing situation?" By expanding the range of questions used for determining an individual's sense of self-efficacy, we would hope to gain a still clearer picture of a writer's sense of personal competence and its relationship to effective writing.

Another important question to be examined is whether accurate assessment of self-efficacy predicts writing performance. Our research suggests that students who accurately evaluate themselves as effective writers do in fact write well, while those who assess themselves as poor writers perform accordingly. But we frequently see writers, especially at the basic writing level, who either vastly over-rate or under-rate their writing performance. We need to determine what types of students make such inaccurate evaluations and what these inaccurate assessments "do" for them. For example, does greatly underestimating one's ability ease anxiety about one's performance? Does overestimation prevent a student from "hearing" critical feedback? Perhaps the accuracy of one's perception of one's own efficacy as well as one's certainty about one's
abilities (efficacy strength), have some important bearing on the quality of writing.

In sum, our research indicates that students’ perceptions of their writing skills are related to their actual writing performance. Thus, it seems important to expand the concept of “self-evaluation” to include evaluation of one’s writing abilities as well as assessment of one’s written work. Further research on both aspects of self-evaluation, performed singly or in combination, may aid in understanding how one’s thinking about one’s writing affects one’s ability to produce good writing.

Notes


8. The Self-Assessment of Writing measure was devised by Meier in conjunction with McCarthy and Rinderer. For copies of this measure, please contact Scot Meier, Department of Psychology, Southern Illinois University, Carbondale, IL 62901. Our thanks to Paula Larsen-Tremblay, Department of English, our research assistant in the final phase of the project. For a description of the anxiety measure, see C. D. Spielberger, R. L. Gorsuch, and R. Lushene, State-Trait Anxiety Inventory Manual (Consulting Psychologists Press, 577 College Ave., Palo Alto, CA 94306). The locus of control measure is described by J. Rotter, “Generalized Expectancies of Internal Versus External Control of Reinforcement,” Psychological Monographs, 80 (1, Whole No. 609, 1966). For a description of the cognitive processing measure, see R. R. Schmeck, F. D. Ribich, and N. Ramanaiah, “Development of a Self-Report Inventory for Assessing Individual Differences in Learning Processes,” Applied Psychological Measurement, 1 (Winter, 1977), 413-431.
9. On the pre-test, efficacy strength was the only statistically significant predictor of writing performance, with an $R^2$ of .14. $R^2 = r^2$, and represents the power of a variable to predict scores on another variable. A higher number means greater predictive power. In this study, self-efficacy consistently explains nearly 15% of the variance in students' writing performance. Thus, the strength of a student's self-efficacy is a major factor in whether the student writes well or writes poorly.

10. During the spring study, efficacy strength and anxiety were statistically significant predictors of writing performance at the pre-test, with a combined $R^2$ of .28 for the two factors. At the post-test, only efficacy strength significantly predicted writing performance, $R^2 = .10$. Although small, $R^2$ values of this size are typically found in social science research; they generally represent meaningful and reliable findings.

Appendix A

Description of Self-Assessment of Writing Measure

The Self-Assessment of Writing measure identifies and defines 19 writing skills. Most of the descriptions include a correct and incorrect example to help students estimate their writing ability. Students are asked to indicate by checking either “Yes” or “No” whether they can demonstrate a skill. Then they are asked to indicate their degree of certainty about their answer by placing an “X” on a scale from 0 to 100, where 0 = great uncertainty and 100 = complete certainty.

The following example is taken from the Self-Assessment of Writing measure:

Subject-verb agreement refers to singular subjects with singular verbs and plural subjects with plural verbs.

(Correct example: The list of items was long.)
(Incorrect example: The list of items were long.)

Can you write sentences in which the subjects and verbs are in agreement?

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Composition Course for Returning Women Students

Betty Renshaw received a number of requests for material on her composition course for returning women students, following mention of the course in a CCC article by another professor. Betty had to decline those requests because she had not unearthed the material after cleaning out her office. It is now available if anyone still wants it: Betty Renshaw, 10210 Prince Place, #302, Largo, MD 20772.