

# FOCUS ON EXCEPTIONAL children

## Oh! Those Wonderful Feelings (The Relationship between Pupil Affect and Achievement)

*Richard J. Whelan, Lupe Mendez de Saman, and Dennis J. Fortmeyer*

And so it was written: Achievement precedes adjustment. This simply means that our self-esteem, self-concept, or whatever label we use to describe how we feel about ourselves is a product of how well we succeed in managing tasks that confront us each day. Success results in good feelings about the self. Conversely, failure may result in feelings of worthlessness. But wait—isn't all this really a "chicken and egg" argument that has no beginning and no ending? Isn't it also true that feeling good about oneself promotes successful performances in school and in other environments? Indeed, both views are correct. To feel good inside usually means that outside performance is good. And when outside performance is good, good feelings usually bubble inside.

The relationship between achievement and self-worth is an issue that has confronted educators for years. It probably dates back to the very first time one person attempted to teach a concept, skill, or performance to another person. Of course, the dilemma for teachers resides in the best way to approach the issue. Do we build up pupils' self-worth first and let achievement follow, or do we ensure successful achievement and hope that increased self-worth will result? In the day-to-day practice of instruction, effective teachers do both. They provide and promote opportunities for successful performance, and they also confirm experiences of feeling good about accomplishments.

What exactly are teachers to do? We can measure pupil performance by administering periodic tests. We can ask a school psychologist or school counselor to give a test of self-concept. If our pupils are achieving, they should feel good about themselves. On the other hand, if our pupils aren't doing well, they probably also feel bad inside. If all this information is known, shouldn't we be able to maintain, change, or improve curriculum to better serve our pupils each and every day?

A complicating factor is that some days students feel great to begin with and then really get down as the day goes on. Other days they come to class feeling blue and leave with smiles and feelings of pride. Standardized tests of self-concept and achievement will provide some global scores, but these scores are static. They reflect a pupil's responses on the day and time the tests were administered, so we can't be sure that they really measure the dynamic day-to-day interaction between pupils and teachers on matters of achievement and feeling.

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Isn't there another way—one that we can use each day or several times a week—to find out about this most important relationship between feelings and achievement? Yes, teachers, there is, and that is what this article is all about.

## BACKGROUND

The relationship between achievement and feelings about the self has been the topic of investigations for many years. In general, feeling good about oneself is believed to lead to acceptable behaviors and adequate academic performance. Conversely, negative feelings about the self predispose a person to behave and perform poorly in school and other environments. If these beliefs are true, it logically follows that students' feelings about the self are closely linked to academic performance in school. Negative feelings will produce poor achievement, and positive feelings will result in satisfactory academic competence. It seems reasonable to conclude, then, that if educators were to focus efforts upon enhancing positive feelings about the self, a change in these feelings should be followed by improved academic performance. So instructing a pupil with the intent of making the self-worth more positive would seem to be an appropriate goal.

# FOCUS ON EXCEPTIONAL CHILDREN

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The assumption, logical or not, that instruction focused upon improving self-worth will produce higher achievement has been researched extensively. The results of that research are at best mixed. Scheirer and Kraut (1979) conducted an extensive review of previously published research on the issue of improving educational achievement by enhancing feelings of self-worth. In the 1960s researchers found correlations of about .40 between self-concept and achievement; that is, the higher the measure of self-worth, the higher was the measure of achievement. And low self-worth scores were associated with lower achievement scores. As Scheirer and Kraut (1979) pointed out, this research stimulated educators to initiate programs to improve pupils' feelings of self-worth, or self-esteem. In essence, the proposition advanced was that a pupil had to have a positive self-regard in order to perform successfully in school (Rubin, Dorle, & Sandidge, 1977).

The review of past research by Scheirer and Kraut (1979) resulted in several important findings or conclusions:

1. Although an intensive program designed to enhance self-worth can succeed in reaching that end and can produce small achievement gains, the gains in self-worth and achievement do not persist over time.
2. When parents are instructed to use positive communication and supportive statements of children's efforts in school, increases in self-concept and achievement result. But when parent instruction is withdrawn, gains in both variables are not maintained.

The implication of this finding is that parents reverted to previous styles of relating to their children about their experiences in school. Thus, symbolically meaningful persons can change children's self-worth and, by doing so, increase academic achievement. For the gains to be maintained, though, meaningful persons, such as parents, must be consistent and persistent in their support of children's efforts to do well in school tasks or learning activities.

3. Correlational relationships between self-worth and achievement are influenced by the sequence used to measure both variables. When self-worth measures are obtained *after* measures of achievement, the correlation is higher than when self-worth is measured prior to achievement. This finding supports the contention that self-worth is probably an outcome rather than a producer of achievement.
4. Structured instructional programs that emphasize knowledge and skill acquisition produce greater

gains in achievement and self-worth measures than do programs designed to focus efforts upon enhancing self-worth.

5. The basic assumption that enhancing pupils' self-worth will lead to increased academic achievement is not supported. Rather, the research to date backs the position that improved self-worth is a product of increased competence in successfully completing academic tasks.

The research would seem to support the assertion that low self-worth is probably influenced heavily by low academic achievement. This finding is consistent when exceptional and nonexceptional pupils are compared (Reid & Hresko, 1981). And individuals who play a significant role in a pupil's life, specifically parents, can have a positive impact upon children's academic performance in instructional settings (Kroth, Whelan, & Stables, 1970).

The message from this research is reasonably clear. Teachers can have a powerful, positive influence upon pupils' feelings of self-worth about their accomplishments by helping them successfully complete school-related tasks. So apparently achievement *does* precede adjustment. And who can better help pupils achieve than teachers? That is their area of expertise, competence, and professional preparation. Teachers can manipulate the variables that improve achievement. Appropriate instructional planning, acknowledgement of pupil performance, and attention to associated affective factors that influence achievement foster both effective intellectual and emotional responses, the most important aspects in promoting independent functioning by pupils (Fagen, Long, & Stevens, 1975.)

### PURPOSE AND RATIONALE

A basic purpose of the research reported in this article was to determine if self-reports of feelings regarding performance in academic areas were positively, negatively, or not at all associated with actual performance measures. The approach consisted of daily measurement of achievement on academic tasks and a simple daily measure of a pupil's feelings before and after completing an academic task. The procedure for obtaining information about feelings required little pupil time to complete and little teacher time to score.

Use of the term *associated* requires some additional explanation. Types of associations that could be observed are as follows:

1. No Association: Self-reports of feelings have no relationship to academic scores. Satisfactory academic performance is not predictive of more

positive feelings, nor is poor academic performance predictive of negative feelings of self-worth. The association has no pattern. A high academic performance score is just as likely to result in negative feelings as positive feelings.

2. Negative Association: Based upon the reported research, this pattern is not likely to be observed. For a pupil to do well on a task and then report a negative self-evaluation would be unusual. This association *could* occur, however, so teachers should be alert to the possibility. An observed pattern of this type could mean, for example, that a pupil is trying to meet an impossible standard. It could also signal the need for counseling or other forms of intervention.
3. Positive Association: Self-reports of feelings follow the level of academic performance. A good performance results in positive feelings. Conversely, a poor performance results in negative feelings. In brief, if the association is positive, the self-report of feelings and the academic measures tend to rise or fall together.

Although published research data provide strong support for improving pupil self-worth via promoting increased academic accomplishments, the application of this information by classroom teachers is still a complex challenge. Teachers cannot administer numerous standardized and normed tests of achievement and self-worth to determine if their instructional programs are producing desirable results. If they were to do so, little time would be left to them or their pupils for the business at hand—teaching and learning. Yet, how pupils feel, in terms of self-worth, about what they accomplish is obviously important. Feeling good about one's competence provides a positive set or approach tendency toward accomplishment of future tasks (Whelan, 1977).

Teachers need a procedure by which they can obtain some indication of how their pupils feel about themselves in relation to the pupils' levels of success with academic tasks. They need a procedure that is simple to use, can be administered frequently, will not detract from instructional time, and will yield useful information for future instructional planning and evaluation.

### METHOD

Two studies were designed and conducted for the purpose of providing information about the relationship between achievement and self-reports of feelings. The first study was with pupils from the elementary grades. The second study focused upon pupils from the secondary grade levels.

## Subjects

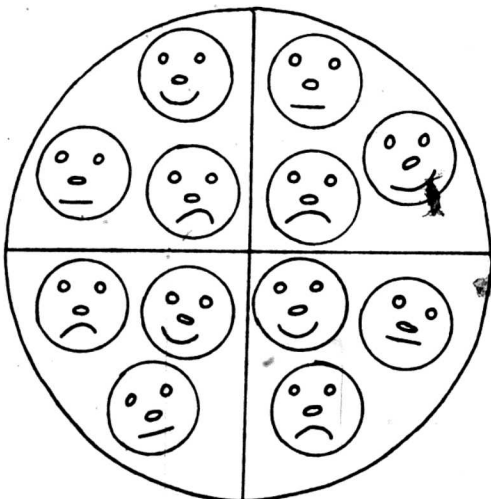
Pupils participating in the elementary-grade study were five girls and six boys, a total of 11. Their ages ranged from 7 through 9. Most of the pupils were performing below ability levels but were within the normal range of intelligence. All had displayed behavior problems to the extent that they were placed in a resource room for a portion of their instruction. Instruction in the resource room was individualized to increase the probability that each pupil would be successful in completing daily academic tasks.

The pupils in the secondary-grade study were in a self-contained classroom program. Six pupils, three boys and three girls, participated. Their ages ranged from 13 through 17. All were identified as exhibiting behavior disorders. Each had an individual, daily plan of study designed to promote task completion with acceptable accuracy.

## Materials

In both the elementary and secondary studies, the materials used were simple to design and apply. For the elementary study the academic tasks were daily assignments in reading comprehension. For the secondary study daily arithmetic assignments were used. These types of assignments were selected because a pupil's response to the stimuli (i.e., a comprehension question or a problem requiring computation) could be measured and recorded in a reliable manner.

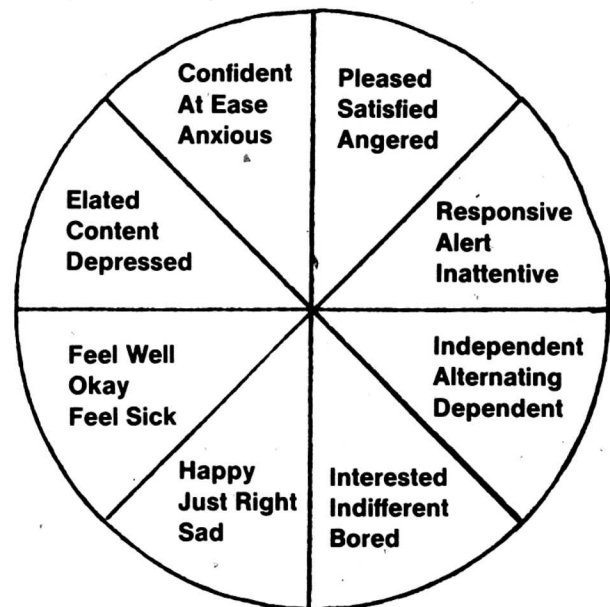
The pupils' self-reports of feelings were marked on circles divided into pie-shaped wedges. Figure 1 depicts



**FIGURE 1**  
The Elementary Study Chart  
For Self-Report of Feelings

the circle chart for the elementary study. It is divided into four wedges or parts. In each part are three faces—one with a smile, one with a frown, and one with a straight line. The pupil recorded a specific feeling in each of the four parts. One wedge was used to record emotional feelings. If a pupil felt really great inside, the smile face was checked; if the pupil felt down, the frown face was checked; if he or she felt somewhere between these extremes, the straight-line face was checked. Another wedge was used to record how the pupil felt physically. A third was used to record feelings about being in the special education resource room. The fourth wedge was used to record and compare feelings about task or work experiences completed, first, in the regular classroom and, second, in the resource room. A large circle chart was mounted on the bulletin board, to explain each wedge, the faces within the wedges, and instructions for marking.

Figure 2 illustrates the circle chart used in the secondary study. It is divided into eight wedges or parts, each with three items representing a range of feelings.



**FIGURE 2**  
The Secondary Study Chart  
For Self-Report of Feelings

Several types of feelings (e.g., emotional, physical, motivation, need for support from others) were included in the chart. This chart was enlarged and placed on the bulletin board, with instructions about how it was to be completed.

## Procedures

The procedures used in the elementary and secondary



studies were similar but had some variance, mostly in response to the age differences between the two groups. The chart for the elementary pupils had only four wedges, and the choices were among facial expressions representing feelings. The chart for the secondary pupils had eight wedges, with word choices from which the pupils selected and recorded their feelings.

As indicated previously, a large wall chart for each of the two study groups included instructions for completing the individual chart, which was identical to it. Upon coming into the classroom each day, and prior to beginning work in the classroom, the pupils were asked to record their feelings on all of the wedges of their individual chart. After the initial or *pre-charts* were completed, the teacher collected and stored them out of sight. Then the pupils began work on assigned academic tasks. When the pupils signaled completion of the tasks, the teacher evaluated the work, calculated percent-correct scores, and gave these to the pupils—an example of immediate feedback, or immediate knowledge of results. After seeing their individual scores, the pupils completed a second or *post-chart* as a record of their feelings. The teacher collected the post-charts and stored them with the percent-correct scores and pre-charts.

Figure 3 illustrates the pre- and post-procedure used with the elementary group. Pupils selected their pre-charts from a large envelope, labeled *HI!*, on the bulletin

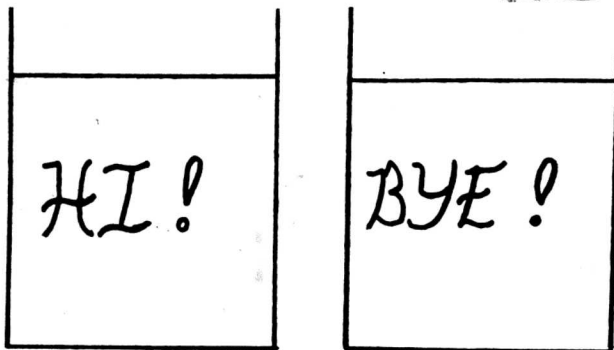


FIGURE 3

#### The Elementary Study Procedure For Pre and Post Self-Report of Feelings

board. After finishing a task and getting it graded, each pupil pulled a post-chart from the *BYE!* envelope and made one mark in every wedge. The teacher of the secondary pupils gave a chart to each pupil before the task and another blank form after the task was completed and graded.

## RESULTS

The elementary and secondary studies were conducted

over a 3-week period, encompassing 15 school days. Variation in the number of days that data were recorded for each pupil reflects absences, for a variety of reasons, from class.

As indicated previously, every pupil completed a chart before and after an academic task or assignment. The marks placed upon the charts became a record or self-report of feelings. For each day, every pupil had a pre- and post-feelings score and a percent-correct score for an academic task. Each smile face carried 3 points, each straight face 2 points, and each frown face 1 point. Thus, if an elementary pupil marked every smile face on his or her chart for the day, the total feelings score was 12; if all the straight faces were marked, the total score was 8; if all the frown faces were marked, the total score was 4. The scores for the elementary group, then, ranged from 4 through 12 per chart. The range in scores for the secondary group was 8 through 24 (because the charts contained eight wedges rather than four).

Data were collected and recorded each day for every pupil. The data on feelings could reflect three possible patterns. For each pattern, there was an associated percent-correct score for academic tasks. These examples, including sample scores of observed patterns, are:

1. Pre-feelings low/post-feelings high
  - a. Elementary: Pre = 8 and Post = 11
  - b. Secondary: Pre = 10 and Post = 16
2. Pre-feelings high/post-feelings low
  - a. Elementary: Pre = 12 and Post = 6
  - b. Secondary: Pre = 20 and Post = 13
3. Pre-feelings tied with post-feelings
  - a. Elementary: Pre = 11 and Post = 11
  - b. Secondary: Pre = 22 and Post = 22

Obviously, number 3 above could include the full range of score possibilities. A pupil could begin the class feeling good and leave the same way. Or the same pupil could arrive feeling poorly and leave with the same feeling.

#### The Elementary Study

Table 1 displays data for the 11 pupils who participated in the elementary study. The three observed patterns described previously are listed on the table as column headings. The "Task % Correct" column for each pattern is the most important source of information because it provides a comparison of pupil performance among the patterns. For the pre low/post high pattern, the mean task-percent correct was 90. For the pre high/post low pattern, the mean task-percent correct performance was only 71. And for the pre-post ties pattern, the mean was 85.

**TABLE 1**  
**Comparison of the Relationship**  
**Between Feelings and Task Achievement:**  
**The Elementary Study**

Pupil	Self-Reports of Feelings Patterns								
	Pre Low/Post High			Pre High/Post Low			Pre-Post Ties		
	No.	Amount of Increase	Task % Correct	No.	Amount of Decrease	Task % Correct	No.	Variance	Task % Correct
1	7	9	88	1	1	50	7	1	89
2	9	14	84	4	10	73	2	0	91
3	8	12	80	1	2	74	6	2	75
4	13	23	96	1	1	90	1	0	80
5	6	6	88	5	6	81	4	2	87
6	1	1	87	2	3	50	12	0	95
7	4	11	87	2	2	97	8	0	83
8	-	-	-	2	2	45	13	1	83
9	4	9	97	6	10	61	5	3	72
10	1	1	100	-	-	-	14	0	89
11	9	9	94	2	4	88	4	1	95
Total	62	95	901	26	41	709	76	10	939
Mean	6	10	90	3	4	71	7	1	85

Table 1 requires additional explanation. The "No." columns indicate the number of times the pattern was observed for each pupil. Columns labeled "Amount of Increase" and "Amount of Decrease" show the total point differences for the number of observed patterns. For example, pupil 1 had seven pre low/post high patterns, and a 9-point increase from pre to post over the seven occurrences. The "Variance" column under the "Pre-Post Ties" pattern indicates the range of differences. For instance, pupil 9 showed a range of ties from 9 through 12. When a column does not indicate a number or task percent-correct score, as for pupils 8 and 10, this simply means that the pattern of feelings indicated in the column was not observed. Pupil 8, for instance, did not have any pre low/post high patterns.

In every instance except pupil 7, each pupil's task percent-correct score in the pre low/post high pattern exceeded the score in the pre high/post low pattern. A comparison of the "Pre Low/Post High" and "Pre-Post Ties" columns reveals that of 10 possible independent chances, the pre low-post high scores were higher in seven instances. And in eight of 10 instances, the "Pre-Post Ties" column percent-correct scores were higher than the pre high/post low scores.

The task percent-correct scores in Table 1 were analyzed using the *Friedman Two-Way Analysis of*

*Variance* (Siegel, 1956). Vacant cells for pupils 8 and 10 were assigned a task percent-correct value equal to the mean of the other cells in the columns in order to have a score in each cell (Winer, 1971). The  $\chi^2$  equaled 9, a value that is significant ( $p < .02$ ); that is, the observed results would occur by chance only 2 times in 100 independent observations. However, the statistical analysis only confirms what can be observed in Table 1. The scores for the pre low/post high were significantly higher than for the pre high/post low pattern.

From the results, it is clear that when pupils in the elementary study did well in their assigned academic tasks, their feelings were affected in a positive manner, and when the pupils performed poorly on academic tasks, their feelings scores were in a negative direction. Stated another way, our feelings appear to result from or are the product of our experiences—in this case, achievement scores on academic tasks.

### The Secondary Study

Table 2 provides a summary of the data for the secondary pupils. Similar to the elementary study, the task percent-correct average score for the pre low/post high pattern (92) exceeded the task percent-correct mean score for the pre high/post low pattern (84). In every

**TABLE 2**  
**Comparison of the Relationship**  
**Between Feelings and Task Achievement:**  
**The Secondary Study**

		Self-Reports of Feelings Patterns							
		Pre Low/Post High		Pre High/Post Low			Pre-Post Ties		
Pupil	No.	Amount of Increase	Task % Correct	No.	Amount of Decrease	Task % Correct	No.	Variance	Task % Correct
1	6	9	91	3	6	79	6	7	90
2	8	45	86	5	18	72	2	3	94
3	2	2	94	2	2	92	5	3	97
4	2	2	90	4	8	79	6	7	91
5	3	13	93	4	7	86	3	2	94
6	9	16	95	3	6	93	3	6	93
Total	30	87	549	21	47	501	25	28	559
Mean	5	15	92	4	8	84	4	5	93

instance the pupils in the pre low/post high pattern had higher scores than in the pre high/post low pattern.

Unlike the elementary group, however, the secondary pupils had a higher task percent-correct mean score, by one point, for the pre-post ties pattern than for the pre low/post high pattern. (This finding is elaborated upon in the next section.)

Task percent-correct scores were analyzed by the *Friedman Two-Way Analysis of Variance* (Siegel, 1956). The obtained  $\chi^2$  was 9, which was significant ( $p < .01$ ). Again, the statistical analysis confirms that under the pre low/post high pattern, pupils performed significantly better than they did under the pre high/post low pattern.

Internal feelings of worth for the secondary level pupils were affected by how successfully they performed tasks. When the performance was good, positive feelings resulted. When it did not meet individual expectations, the reported feelings were negative.

## DISCUSSION

The obtained results from this study support the position that a relationship exists between how one performs and how one feels about that performance. Indeed, a strong case can be made for the statement that achievement precedes adjustment. It should be discerned that teachers—acknowledged experts in instruction—can influence a pupil's internal feelings, often referred to as self-concept or self-worth. That influence, of course, is a function of assisting a pupil to perform successfully in school-related tasks.

Another important finding is that the elusive, global

variable called self-worth may be a collection of many, many experiences. The day-to-day experiences and interactions in school settings probably summate to a general, internal assessment of one's competence in relation to self and others' expectations. If pupils experience a preponderance of daily successes, these successes will likely be reflected by a generally positive self-concept. Conversely, of course, lack of achievement (failure) can produce a poor self-concept. Teachers, then, have unique yet important responsibilities to ensure that pupils do acquire success patterns of performance rather than orientations to failure.

Several additional comments will further explain the data in the tables. In Table 1, pupil 7 had a higher task percent-correct score on the pre high/post low patterns than on the other two patterns. This pupil was the only exception to the overall findings of the elementary and secondary studies. But inspection of this pupil's daily scores yields some possible explanations. First, this pupil had only two instances of the "No." pre high/post low pattern. The pre feelings scores were 11 and 12, the post scores were 10 and 11, and the academic scores were 100% and 93%. It seems that this pupil came to class feeling good, did well on tasks, and left feeling good, too. Perhaps the one-point drop in self-reports of feelings for each instance was simply due to random error. For the pre low/post high pattern, the pupil task percent-correct average would have been 91 except for one day of 75%. A notation in the teacher's record book indicated that a new lesson was introduced that day. Possibly the pupil believed that since the task was difficult and new, a task percent-correct of 75 was quite satisfactory and,

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therefore, felt quite good about it.

The "Pre-Post Ties" columns of Tables 1 and 2 also require additional explanation. For the elementary group (Table 1), the task percent-correct mean was 85, 5 points below the mean of the pre low/post high pattern. A pattern of ties between pre and post feelings can reflect considerable variance. For example, a pupil who enters class feeling good and does well may leave class at the same feelings level. The same relationship holds for pupils who come to class feeling down; if they do poorly on academic tasks, they probably leave with negative feelings. Task percent-correct scores for the elementary group ranged from 50% through 100%. The mean of 85 simply is a reflection that most pupils came in feeling fine, did fine, and left feeling fine.

For the secondary study (Table 2), the average task percent-correct score for the pre-post ties pattern was 93, one point better than the pre low/post high pattern mean of 92. This group of pupils had a great many days of coming to class feeling good, doing well in academics, and leaving with good feelings.

The data described in this article provide additional support for the position that feelings about one's behavior (hence, oneself) tend to follow performance. On the other hand, a history of mostly successful day-to-day functioning builds up confidence. A confident pupil approaches difficult tasks instead of avoiding them. Avoiding difficult tasks is a product of numerous failures to respond successfully to expectations. Approaching difficult tasks is a product of numerous successes.

## IMPLICATIONS FOR TEACHING

One criticism often directed at teachers is that they are too oriented toward academics; they simply don't care about the emotional or inner life of pupils. Frankly, that criticism is not valid. Sure, teachers care about academics. Their job is to help pupils grow and progress in the knowledge and skills required of productive citizens. But teachers also care about feelings. Humans do not thrive by production alone. They may exist, but positive feelings of self-worth are necessary for thriving. Feelings, though, are intangible. They are difficult to grasp, manipulate, change, and measure—not at all like dealing with arithmetic instruction. As a result, teachers probably do not devote much time to helping pupils reach an understanding and appreciation of the role that feelings play in the development of a mentally healthy, competent human being. Teachers are aware that a positive self-concept is important but are unsure how

to go about enhancing that elusive aspect of the human gestalt.

Teachers can use the simple technology described in this article to plan and evaluate instruction and to determine how pupils feel in relationship to it. Academic performance and feelings act as partners to enhance pupil growth and progress in cognitive and affective domains. Frequent measures of achievement and feelings can provide important feedback to teachers and pupils. For example, if pre high/post low feelings patterns and low task percent-correct performance scores become frequent, that is a signal to modify instructional planning. Perhaps a simple modification in instructional content or mode of presentation can be enough to reverse the pattern.

Relating feelings to and with achievement also provides opportunities to teach pupils that a few instances of low academic performance may make them feel badly for a brief time but that the condition is not permanent. By working together, pupils and teachers can turn failure patterns into success patterns and, by doing that, both achievement and self-concept will be strengthened.

So, teachers, and as promised, this article shows a way to deal with the relationship between feelings and achievement. The procedures described here do not offer any magic. They do, however, offer a way to help pupils—and teachers—deal with their ups and downs in a productive manner. Go ahead and try the procedures. We all may find that those feelings are indeed wonderful!

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