

Utilizing a Measure of Problem-Solving Strengths to Increase Students' Self-Esteem

Karen E. Gerdes and Layne Stromwall

Conation is the little-studied component of human action that each person uses to achieve goals. In partnership with affective and cognitive components, knowledge of a student's conative profile (method of approaching a learning problem) allows school personnel to tailor educational strategies that use the individual's personal strengths. In this article we report results of an empirical study of a conative intervention in a middle school. The conative profiles of both teachers and students whom the teachers identified as problematic were assessed. Teachers learned conative strategies, including how to work with students whose conative profiles differed from their own. We report the teachers' evaluation of the utility of the new information, introduce school social workers to the concept of conation to show how this concept is compatible with the strengths perspective, and help school social workers understand how to assess conative abilities. Such assessment can contribute to students' self-esteem and improve the teacher-pupil relationship.

Keywords: *conation; conative abilities; conative strengths; conative MO; school social work; self-esteem; teacher-pupil relationship*

Joyce had a very high IQ, impressive facility with numeric and abstract thinking, and a failing grade in geometry. Thomas, another bright student, couldn't seem to follow step-by-step instructions; he was too eas-

Karen E. Gerdes, PhD, and Layne Stromwall, PhD, are both associate professors at Arizona State University School of Social Work. Address correspondence to Karen E. Gerdes, 411 N. Central Avenue, Suite 800, Phoenix, AZ 85004-0689; tel.: 602-496-0054; e-mail: kegerdes@asu.edu. The authors would like to thank the Center for Conative Abilities in Phoenix, Arizona, for their support and cooperation.

ily bored and distracted. A diagnosis of ADHD, followed by appropriate medication, did nothing to improve Thomas's concentration. He, like Joyce, failed in several subjects that seemed well within his ability level. Susan, a high school junior, had a problem that baffled her parents and teachers: with intelligence measured near genius level, she mastered all her classes' subject material easily but often became hopelessly confused about the correct procedure for handing in completed work and simply failed to do so. School social workers receive referrals every day from teachers who don't know what to do with students like Joyce, Thomas, and Susan. One of the authors, who knew all these students, realized that the challenges that interfered with their educational progress were neither physiological, emotional, nor cognitive. They were *conative*.

Conation is a component of human action that is neither emotional nor intellectual. It is a label for the innate mode of action each person uses to problem solve and achieve his or her goals (Kolbe, 2005). Whereas the affective component of the mind concerns *feeling*, and the cognitive relates to *thinking*, conation refers to *doing*. Most social workers and educators know little or nothing about conation—this is regrettable, since understanding a student's conative profile would allow them to tailor educational strategies that use the student's individual problem-solving strengths. Joyce, Thomas, and Susan were lucky: they ultimately received help identifying and developing their problem-solving strengths, or conative abilities. In all three cases, this led to dramatic improvement in academic success, self-direction, and self-esteem.

The purpose of this article is threefold. In it, we will introduce school social workers to the concept of conation; show how this concept is compatible with the strengths perspective, and how it can lead to the recognition of previously hidden student conative strengths; and help social workers learn how to assess conative abilities to improve collaboration between teachers and students and increase students' self-esteem.

Accordingly, we will first describe and explain conation, which has been poorly defined and explicated in academic literature to date. To show how this theoretical concept can help in school social work practice, we will then present a study utilizing a robust, well-tested instrument for elucidating individuals' conative strengths (the Kolbe Y [Youth] Index) and show how it was applied in a midwestern middle school to identify problem-solving strengths, improve student-teacher relationships, and increase students' self-esteem. Our aim, in part, is to persuade readers that conative assessment is a natural fit with strengths-based practice and can be used effectively in school settings.

What Is Conation?

The word *conation*, one of the least commonly used words in the English language, has been used for centuries to label the typical pattern of behaviors that individuals utilize to respond to stimuli and achieve their goals (Schur, 1990). Until now—as evinced by its obscurity—the concept of conation has been poorly understood within the academic literature. Gerdes and Stromwall (2008) discuss at length the muddled and inconsistent use of the concept in academic discourse. What follows is an adumbrated sketch of that more detailed analysis.

Since the ancient Greeks first began analyzing the human mind, certain theorists have described consciousness as having three domains: feeling (the affective component), thinking (the cognitive faculty), and doing (the conative faculty) (Hilgard, 1980). Educational psychologists, who frequently discuss individual differences in learning, have occasionally recognized conation—along with affective and cognitive factors—as an important component of these differences (Gerdes & Stromwall, 2008). However, these scholars have failed to agree upon a single operationalized definition of conation. Nor do they agree on any shared model of the integration between conative, cognitive, and affective processes (Kanfer, 1988).

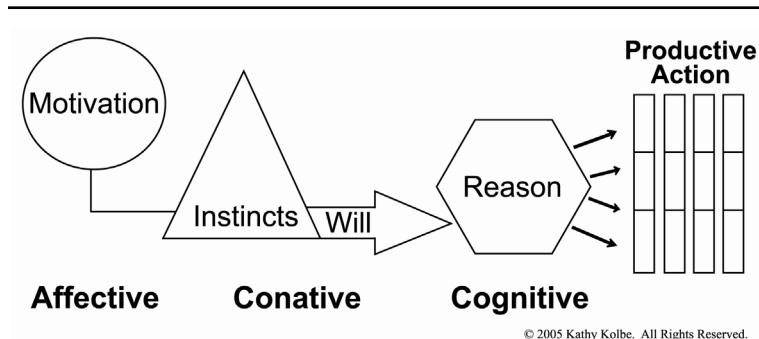
It is widely accepted that learning involves multiple dimensions; however, the existing research on conation, and its integration with other aspects of learning, has been “small scale, isolated and piecemeal” (Snow & Jackson, 1993, p. 2). Most school social workers and teachers are familiar with the constructs of learning styles and multiple intelligences and understand how these constructs have been utilized to increase student learning and self-esteem (Carlton, 1992; Davis, 1991; Herbe, Thielhouse, & Wykert, 2002). These constructs include cognitive, affective, and conative components. The purpose of this study is to separate out the conative elements of learning styles and multiple intelligences in a way that allows us to identify very specific problem-solving strengths among students.

Conation is necessary to explain how knowledge (thinking) and emotion (feeling) are translated into actual behavior (doing) (Bagozzi, 1992). For example, Joyce, Thomas, and Susan all had proven intellectual ability (cognitive skill); all three students wanted to succeed (affective motivation). However, their means of taking action—their individual ways of approaching tasks (conative abilities)—differed from each other, and also from the ways in which their teachers wanted them to behave.

This tripartite division of the mind is present in any deliberate human behavior. For a student to take any purposeful action, there must first be

some sort of motivating circumstance or condition, which operates within the affective domain of the mind (Kolbe, 2004). Instinctive ways of channeling the energy to act—the conative domain—determine what form the action is likely to take. The impulse to act, as well as the process of action, is screened by cognitive reasoning, which assesses the possibilities and edits and evaluates decisions (see figure 1). The result of this three-stage process is observable behavior or conative action (Kolbe Corporation, 2002).

Figure 1. Creative Process That Results in Conative Action



Kolbe Corporation. (2002). *Kolbe statistical handbook: Statistical analysis of Kolbe indexes*. Phoenix, AZ: Author.

Conative Domains

We hold that conation is the way in which a person with any degree of motivation, compliance, or goal orientation frames attempts to succeed. Joyce, Thomas, and Susan were all highly motivated, but Joyce pursued her goals through manipulation of the physical world, and Thomas through trial and error. Susan's action style actually made her reluctant to deal with physical objects (the homework she was supposed to hand in).

It must be stressed that these disparate conative abilities are differences in type, not effectiveness or intensity—in other words, the differentiation is not quantitative (i.e., Susan does not necessarily have more conative strength than Thomas) but qualitative (Susan's innate tendency is neither more nor less useful than Thomas's; the two are simply different). The first researcher to closely observe and describe the qualitative differences between conative profiles was a theorist named Kathy Kolbe (1990). Kolbe theorized a conative modus operandi, which she referred to simply as MO. A person's conative MO predicts the way in which that person is likely to approach any task, with any level of motivation and cognitive ability.

The Four Action Modes

Over many years of direct observation with thousands of students, Kolbe (1990) described four different patterns of conative abilities or action modes. The first mode, which Kolbe calls the fact finder action mode, is to approach a task by gathering information. A student initiating action in this mode needs to go to the Internet or the library or gather information from others as a first step in solving a problem or achieving an objective. A fact finder student has a natural impulse to be precise, ask for lots of details, and provide long explanations, whereas a student who initiates action in the “follow thru” mode focuses primarily on using or establishing organized systems to achieve a desired outcome. For example, the student needs to be able to follow step-by-step directions, and her inclination is to carefully plan her work before beginning any assignment. Once she is organized, she may prefer to complete the assignment from beginning to end without many interruptions.

In another mode—quick start—an individual initiates action by using trial and error as a primary tool, without paying as much attention to systems, information, or material objects. A student initiating action in quick start puts his best foot forward when he is allowed to begin using a process or concept immediately, learning how it works only through active experimentation. In other words, he doesn't listen to or read all the directions before starting the assignment and relies heavily on improvisation. Finally, individuals who operate in the implementor action mode utilize physical objects as the primary conative tool in approaching a task. For example, an engineer, athlete, or artist might begin positioning or sorting various physical materials, or moving his or her own body to work out a solution to a problem. A student who initiates action in the implementor mode prefers hands-on situations to paper-and-pencil assignments. Real-world experiences are critical to his or her ability to learn.

When the three students described in the introduction were assessed with the Kolbe Y Index, Joyce's conative profile showed that she was predisposed to initiating action with implementor skills—that is, she achieved tasks by manipulating physical objects. Her teacher tried using actual objects as heuristic devices—in one case, the bricks, levels, and other instruments used in building walls—and found that Joyce grasped the concepts very quickly. In fact, Joyce proved to be a talented math student as long as she could connect every concept to physical objects.

Thomas's conative strength was his ability to initiate action using the quick start approach. His distractedness and boredom were actually the restlessness of a willing student who wanted to begin using a concept

immediately, learning through trial and error, while his teacher (using fact finder approaches that worked for her) insisted that he wait to get all the instructions and avoid mistakes. Once the teacher understood Thomas's conative MO and allowed him to utilize trial-and-error learning tactics, he, too, began to thrive in school.

Susan's Kolbe Y Index score showed that her innate tendency was to gather large amounts of information (initiating action with fact finder tactics), and to resist working with objects (she was least comfortable with implementor actions). Her problems handing in homework lessened dramatically once she understood this. Susan and her teachers developed strategies so that Susan would receive careful details about the physical logistics of "processing paper." Finally, Susan's excellent cognitive work was able to physically reach her teachers' desks. Her grades, self-esteem, and sense of efficacy all benefited.

One major contribution to this productive use of conative analysis was Kathy Kolbe's method of assessing, and then describing, an individual's likelihood to utilize each of the four conative action modes. All four modes are possible for each person, but individuals tend to consistently prefer certain action modes, while avoiding or resisting others. The instrument uses three different descriptors to indicate how likely an individual is to use a particular action mode. The three categories of likelihood are "initiates action," "accommodates people and situations," and "prevents problems." In other words, a given person might (for example) initiate action in a follow thru manner, accommodate a fact finder approach, and prevent problems by avoiding quick start methods. Basically, "initiates action" refers to what an individual probably will do to solve a problem, given the freedom to act without direction. "Accommodating people and situations" refers to a tendency to facilitate or mediate the action of others. Finally, "prevents problems" refers to a conative tendency to resist taking action in a particular mode in order to avoid problems. These preferences are referred to as zones. A low number (1-3) in the Kolbe Y Index means that the subject tends to avoid a given action mode in order to prevent problems. A high number (7-10) means that the subject works to find solutions by utilizing his or her innate conative ability. A mid-range score (4-6) indicates that the subject may not initiate action in a certain mode but will accommodate those who initiate actions and those who prevent problems by using or not using that mode. A mid-range score on a given action mode often suggests that the subject would function well as a facilitator of action, especially when there is conflict between those who are prone to prevent that action, and others who tend to initiate it.

The Kolbe A (Adult) Index has already proved to be a powerful tool for understanding the efficacy of individuals and collaborative groups, in business, higher education, and political organizations (Fitzpatrick, Askin, & Goldberg, 2001; Hoffman, 2001; Huitt, 1999; Lingard, Timmerman, & Berry, 2005). Our results will make evident that the youth version of the index is also a powerful tool for increasing student efficacy or self-esteem.

Method

The study took place in a middle school with 392 regular-education students and 19 regular-education teachers in a small midwestern city. The purpose of the study was to train a small group of teachers to use Kolbe Y Index results in the classroom and thereby increase the self-esteem of their students. The hypothesis was that students in the experimental group would have a greater increase in self-esteem than students in the comparison group.

In June 2005, the entire faculty and staff of the selected school participated in a half-day workshop with a Kolbe-certified trainer. The trainer explained the concept of conation and problem-solving strengths. The participants had all taken the Kolbe A Index one month earlier, and they were given their Kolbe A Index results at the workshop. The trainer explained the meaning of the results to the group.

In early September 2005, all the students, using school computers, took the Kolbe Y Index and the Rosenberg Self-Esteem Scale. The students were not given their results. Later that month, ten teachers were randomly selected to be in the experimental group. They were each asked to select three or four students in their classes who were underperforming. As follow-up to the staff training in June, the experimental group teachers participated in two two-hour teleconference trainings with Kathy Kolbe. These two additional trainings were designed to provide information on how to interpret the Kolbe Y results for the underperforming students the teachers had identified, as well as how to utilize different conative strategies in the classroom to meet the needs of those students.

Sample

The school population consisted of 216 (55%) females and 176 (45%) males. Forty percent of the student body were African American, 39 percent were white, and the remaining 21 percent were Latinos, Native Americans, and other minorities. The experimental group (see table 1) consisted of thirty-one subjects: seventeen males and fourteen females. Eighteen students were African American, eleven white, one Native

Table 1. Experimental and Comparison Group Demographics

	Females	Males	African Americans	White	Other minority
Experimental group (<i>N</i> = 31)	14 (45%)	17 (55%)	18 (58%)	11 (36%)	2 (6%)
Comparison group (<i>N</i> = 36)	18 (50%)	18 (50%)	5 (14%)	19 (53%)	12 (33%)

American, and one Latino. While the experimental group was not randomly selected, in terms of race and gender, they were fairly representative of the entire school population.

The selection criteria for the experimental students were an IQ over 100 and no designation of emotional disability or serious behavior problems. During the academic year 2005–2006, the experimental group teachers used their knowledge of the experimental group students' problem-solving strengths in their interactions with the students and in their teaching/learning strategies with the students.

The comparison group was randomly selected from the remaining student population and consisted of eighteen males and eighteen females (*N* = 36). Nineteen students were white, six students were Latino, five students were African American, four students were Native American, and two students were Asian. The teachers of these students did not know their students' Kolbe Y results, they did not participate in additional Kolbe teleconferences, and they did not utilize any specialized strategies with their students.

Measures

The Kolbe Y Index

The Kolbe Y Index is a twenty-six-item questionnaire that asks students to choose how they are least likely and most likely to respond to different problem-solving scenarios. A brief sample of the Kolbe Y Index and the instructions is provided in figure 2.

The Kolbe Y Index is designed to measure conative abilities or problem-solving strengths in each of the four action modes. It must be stressed that every student is capable of initiating action or problem solving in all four action modes, but every student has a strong innate tendency to use a particular action mode to initiate action. For example, some students engage in problem-solving activities by utilizing fact finder traits, while other students might initiate action using quick start or implementor traits.

Figure 2. Sample Questions from the Kolbe Y Index

What would you do **FIRST** and what would you be **LEAST** likely to do? Be sure to select one **FIRST** and one **LEAST** for every question.

When I learn a new game, I:

FIRST	LEAST	
—	—	watch how it's played
—	—	read the directions
—	—	touch it to feel how it works
—	—	try it and see what happens

When I make something myself, I try to make:

FIRST	LEAST	
—	—	it look real
—	—	it very neat
—	—	something new
—	—	something that lasts

When I get instructions, I need them:

FIRST	LEAST	
—	—	shown to me
—	—	short and to the point
—	—	complete
—	—	very specific

A series of algorithms developed by Kathy Kolbe is used to score the Kolbe Y Index (Hoffman, 2001). The scoring system assigns a number ranging from 1 to 10 to each of the four action modes (see figure 3). The final result is a series of four numbers (one for each action mode), which indicates the students' conative MO or problem-solving strengths. For example, a person with an MO of 5774 scored a 5 in fact finder, a 7 in follow thru and quick start modes, and a 4 in implementor. There are no right or wrong or high or low scores, nor is any given MO less effective than any other. The Kolbe Y score is a descriptive profile of problem-solving strengths.

Because Kolbe is acutely sensitive to valuative biases against certain action modes or problem-solving tendencies, a low number in a given action mode does not describe a deficiency, but rather an individual's tendency to avoid a particular action mode as a way of preventing problems that may arise from the use of that action mode. For example, a preventative fact finder (i.e., a person with a score between 1 and 3) can help a group avoid what is often referred to in academia as "analysis paralysis." By resisting initiating fact finders' (i.e., a score between 7 and 10)

Figure 3. The Four Action Modes and Three Operating Zones for Conative Action

		Fact Finder	Follow Thru	Quick Start	Implementor
Kolbe Y Score	Zone	Gathers information and communicates	Stores and organizes information	Deals with risks and unknowns	Handles space and tactile efforts (to build or demonstrate)
	1	Won't	Won't	Won't	Won't
	Resist action or prevent problems	Require documentation	Be rigid with plans	Be impulsive Be ambiguous	Require concreteness
2		Get bogged down in minutiae	Get stuck in routines	Cause distractions	Force tangible solutions
		Overanalyze	Follow a schedule Act sequentially	Force change and disruptions	Have to see a prototype Need to physically demonstrate
3					
		Willing to	Willing to	Willing to	Willing to
4	Accommodate or respond to people's needs	Review the data Work within priorities	Maintain order Work within the system	Go along with risks Try alternatives	Work with tangible goods Use models
5		Give specifics Go with the highest probability	Adhere to the plan Maintain concentration	Use metaphors Interject spontaneously Follow another's hunch	Use tools and equipment Envision concrete examples Utilize protective gear
6			Stay in sequence		
		Will	Will	Will	Will
7	Insist or initiate action	Collect data Establish priorities	Design systems Seek order	Promote experimentation Take risks	Create tangible goods Develop prototypes
8		Create analogies Put in writing	Arrange logistics Force closure	Discover alternatives Ad lib	Master mechanical devices Detect solutions tactilely
9					
10					

information-gathering tendencies, a preventative fact finder could help a group of students move out of unproductive and endless discussion and speculation and into productive problem solving.

The preventative fact finder is often an initiating quick start. For example, a student with a score of 2 in fact finder and an 8 in quick start is sometimes labeled a low-motivation and low-attention student by parents, teachers, and social workers. It is very likely that the student is actually very motivated but has a preference for immediate action and the use of trial-and-error tactics, which may be misunderstood by others as low motivation and attention. When viewed as problem-solving strengths, these tendencies can be utilized by parents, teachers, and social workers

to help the child learn and grow in a positive, supportive environment—more specifically, in an environment that recognizes and honors his or her individual strengths and, most importantly, provides opportunities to use his or her strengths.

The Kolbe A Index

The teachers and staff all took the Kolbe A Index, and their results were explained to them at the June workshop. The Kolbe A and the Kolbe Y are scored the same way. The Y index is written at a fifth-grade reading level, and the A Index at about a tenth-grade reading level. The ten teachers in the experimental group had additional teleconferences with Kathy Kolbe to learn more about their own Kolbe results, their students' results, and how to use those results effectively in the classroom.

Kathy Kolbe helped the experimental group teachers understand that conflict between a teacher and a student, or a parent and a student, is sometimes conative conflict. In other words, the conative MO of the teacher conflicts with the conative MO of the student. For example, if a teacher has an MO of 8823, that teacher is an initiating fact finder/follow thru and preventative quick start and implementor. If the student's MO is 3385, the student is an initiating quick start and a preventative fact finder/follow thru. The teacher and the student have innate problem-solving tendencies that are in direct conflict with each other. Unless these conative differences are understood and articulated, the teacher and the student will probably not be able to communicate effectively and the teacher may not be able to effectively help the student learn and thrive in the classroom.

Several studies concerning the test-retest reliability and the validity of the Kolbe A Index have been completed over the past fifteen years (Kolbe Corporation, 2002). The most recent test-retest study included several subsamples ranging from two- to fifteen-year intervals (Kolbe, Young, & Gerdes, 2008). The average test-retest correlation coefficients for each action mode within each subsample ranged from .73 to .82. Almost identical results were found for the Kolbe Y Index (Kolbe & Gerdes, 2007).

The Rosenberg Self-Esteem Scale

In our introduction to this article, we mentioned that part of our purpose was to observe the effect that conative assessment might have on students' self-esteem. Part of our hypothesis is that students whose teachers understand their conative strengths experience increased self-esteem. To test this hypothesis, we assessed the self-esteem of the subjects in our study before and after the intervention period.

The Rosenberg Self-Esteem Scale is a ten-item measure of global self-esteem (Rosenberg, 1989). Participants are required to respond to each statement by identifying whether they strongly agree (four points), agree (three points), disagree (two points), or strongly disagree (one point) with each item, for example, "I take a positive attitude toward myself" and "I certainly feel useless at times." Scores range from 10 to 40, with higher scores indicating higher self-esteem. We chose to utilize the Rosenberg scale because it has been widely used with middle school populations, has been demonstrated to be a valid measure of self-esteem (Grossman & Kerner, 1998), and has consistently generated reliable scores (Lorenzo-Hernandez & Ouellette, 1998), and there is no charge to use the scale for educational purposes.

At midyear (February 2006), the teachers in the experimental group were interviewed briefly by one of the researchers. In June 2006, students were asked to retake the Rosenberg Self-Esteem Scale. The teachers of the students in the experimental group were given the students' Kolbe Y results. The teachers were instructed to interact with them based on the students' conative abilities. In other words, the teachers were asked to utilize the conative measures and strategies they had learned in the training to help their students be more successful. The teachers of students in the comparison group were not given their students' Kolbe Y results.

Data Analysis

Paired *t*-tests, independent *t*-tests, and chi square analysis were used for the quantitative data analysis. Paired *t*-tests were used for within-group comparisons of the before-intervention and after-intervention mean scores on the Rosenberg scale. The independent *t*-tests were used for between-group comparisons of the Rosenberg mean scores. Finally, independent *t*-tests were used for between-group comparisons on the Kolbe action mode scores, and chi square analysis was used for group comparisons within the zones of each action mode.

Analysis of Rosenberg Self-Esteem Scores

Using the paired *t*-test, we found the difference between the pre- and post-intervention scores in the experimental group were statistically significant ($t = -3.498$, $df = 30$, $p = .001$). In other words, the increase in the self-esteem scores for the students in the experimental group was statistically significant. In contrast, the increase in the self-esteem scores of the comparison group was not statistically significant ($t = -.877$, $df = 35$, $p = .386$). See table 2.

Table 2. Pre- and Post-test Differences on Rosenberg Self-Esteem Scores

	Pre-test mean	Post-test mean	<i>p</i> value
Experimental group (<i>n</i> = 31)	18.84 (<i>SD</i> = 5.06)	21.52 (<i>SD</i> = 4.54)	.001
Comparison group (<i>n</i> = 36)	21.61 (<i>SD</i> = 4.92)	22.25 (<i>SD</i> = 4.83)	.386

Independent *t*-tests were used to analyze the difference between the pre- and post-test mean self-esteem scores for the experimental and comparison groups (see table 3). Although the experimental and comparison groups were not of equal size (31 and 36, respectively), they were both made up of regular-education students in the same school. The independent *t*-test does not require the groups to be the same size. The difference between the pre-test means was statistically significant ($t = -2.270$, $df = 65$, $p = .027$). The experimental group had the lower mean score of 18.84, and the comparison group had the higher mean score of 21.61, indicating that at the beginning of the intervention period, the experimental group students, on average, had lower self-esteem than the comparison group students.

Table 3. Between-Group Differences on Rosenberg Self-Esteem Scale at Pre-test and Post-test

	Pre-test mean score	<i>p</i> value	Post-test mean score	<i>p</i> value
Experimental group (<i>n</i> = 31)	18.84 (<i>SD</i> = 5.06)	.027	21.52 (<i>SD</i> = 4.54)	.526
Comparison group (<i>n</i> = 36)	21.61 (<i>SD</i> = 4.92)		22.25 (<i>SD</i> = 4.83)	

However, the post-test mean scores indicate there was no longer a statistically significant difference between the experimental and comparison groups ($t = -.638$, $df = 65$, $p = .526$). The experimental group had a mean score of 21.52, and the comparison group's mean was 22.25. Both groups had an increase in self-esteem, but only the experimental group had a statistically significant increase.

Analysis of Kolbe Action Modes

Independent *t*-tests were also utilized to analyze the mean differences between the experimental and comparison group scores in each of the four action modes. There were no statistically significant differences between the two groups, although quick start approached statistical significance ($p = .07$). The quick start finding is explained in part by the disproportionate number of initiating quick starts in the experimental group ($n = 10$, 32.3%). In comparison, only 16.7 percent ($n = 6$) of the comparison group were initiating quick starts.

However, chi square analysis indicated the differences were not statistically significant. There was also a disproportionate number ($n = 18$, 50%) of initiating follow thrus in the comparison group, while only 23 percent ($n = 7$) of the experimental group were considered initiating follow thrus. Once again, chi square analysis indicated the differences were not statistically significant. Finally, there were no statistically significant differences between males and females in each of the four action modes.

Qualitative Findings from Brief Interviews with the Teachers

In a brief face-to-face interview with experimental group faculty, one of the researchers asked, "What has been the impact of knowing your own MO, and the MOs of your experimental group students?" There were two predominant themes in the brief interviews: (1) the teachers stated they would like to have additional training and (2) the teachers reported that the students who benefited the most were the students with whom they had previously been in conative conflict. For example, one teacher reported the following:

It helped me to understand where certain kids get frustrated. I paired two of my students up that had similar MOs and it made all the difference. It helped me to be more patient and understanding. This particular kid [MO = 3376] was a thorn in my side. I knew he was bright but wondered if he had ADD. I thought he was being disruptive on purpose. Now I realize this is truly who he is and I have learned to accommodate the way he does things. For example, he would read his novel in class. Now I know he needs to do that sometimes and he is learning and I let him do it!

Thomas was an initiating quick start, while his scores on the Kolbe Y Index showed him to be preventative, in fact, in finder mode. One of his teachers was an initiating fact finder and prevented Thomas from mov-

ing directly into trial-and-error experimentation, thinking Thomas would be more successful following the path she herself found most engaging and natural. A preventative fact finder student and an initiating fact finder teacher have two very different paths to success—the student was distracted, bored, and confused by large amounts of preliminary research, while the teacher believed it was necessary for the student to be productive. Once the teacher understood what it meant to be a preventative fact finder, she was more willing to allow her student to utilize different strategies to learn the material, and to provide positive feedback and rewards for those strategies.

Discussion

Empowering teachers with knowledge of their own conative MOs as well as the MOs of students the teachers had identified as difficult or underachieving resulted in increased self-esteem among the students and more understanding and productive teacher-student relationships. School social workers are often asked to consult on student problems in which student-teacher relationships play a part. An important aspect of school social workers' methodology is the use of the biopsychosocial-spiritual model to help teachers understand the context of the issue at hand in a new way. By adding knowledge of conation to the biopsychosocial model, school social workers can give teachers a new tool, conative assessment, that will help teachers uncover previously hidden student strengths in problem solving. At the same time, conative conflict between teachers and students will be reduced because social workers can help teachers stop viewing underachievement as deliberate misbehavior and reframe it as a possible conative conflict situation. The conative conflict can be resolved when the teacher and the student are helped to understand their natural problem-solving strengths.

School social workers can note that the students in the experimental group were more likely to be initiating quick starts and the students in the comparison group were more likely to be initiating action through follow thru, although these group differences were not statistically significant. In other words, students with conative MOs that were more likely to be different from the average teacher's MO were also more likely to be labeled underachieving or difficult. Employing and understanding the concepts of conative abilities and conative conflict will assist school social workers to avoid labeling students, particularly students who have conative MOs that are different from those of their teachers. Teachers will be better equipped to help students use their own strengths to approach problems and learning.

We recommend that school social workers learn about conative assessment and intervention and add it to their strengths-based assessment and practice. As described in this article, in addition to increasing self-esteem, understanding a student's conative MO and encouraging learning activities based on that profile can improve student performance in school as well as prevent the temptation to medicalize students' problem-solving methods. School social workers might use knowledge of conation as an interim assessment and intervention before considering an ADD/ADHD diagnosis and referral for medication.

Another way that school social workers can use knowledge of conation is in work with professional educational teams. Identifying the conative MOs of professional educational team members such as teachers, social workers, and administrators could also increase the effectiveness of the team's work and of the school system as a whole. The educational system attracts professionals who operate in fact finder and follow thru action modes (Kolbe & Gerdes, 2007). Fewer educators are initiating action through quick start and implementor action modes. Understanding each team member's conative strengths could help teams function more efficiently and effectively by allowing teams to utilize each member's natural abilities and reframe negative attitudes toward others with different conative strengths. For example, a team may benefit from understanding that several members who initiate action through follow thrus can easily develop a highly structured curriculum but need help from initiating quick starts to make room for flexibility in the curriculum.

Limitations and Future Research

It is possible that the increase in self-esteem found in our sample can be explained by the Hawthorne effect, which would explain the change as a direct result of teachers giving students more positive attention, without consideration of the added knowledge about conation that the teachers utilized. While we argue that the students' self-esteem increased because their teachers began to interact with them in a way that acknowledged and supported their natural conative abilities, further research with diverse populations should be undertaken.

The study of conation and how it can be applied in school social work practice and the educational system is in its infancy. While we make suggestions based on this study, it is clear that additional research could yield information that would benefit school social workers, students, and teachers. For example, mentoring programs could utilize conative matching techniques, wherein mentors and mentees are matched according to their conative strengths. Conative components could be

added to school curriculum to ensure that each student is empowered to use his or her natural abilities to learn.

Implications for Educational Policy

Knowledge about conation provides school social workers and teachers with one more tool to help students learn. The political and ethical pressures on school systems to demonstrate student learning gains are severe, and educational innovation is needed to address these needs. Cost-benefit research would demonstrate how knowledge about conation can be brought into the educational system in a cost-effective manner. Overall, conation could help students, teachers, and administrators increase their satisfaction with and productivity within the school system.

References

- Bagozzi, R. (1992). The self-regulation of attitudes, intentions, and behavior. *Social Psychology Quarterly*, 55(2), 178–204.
- Carlton, S. (1992). Fitting a square peg into a round hole. *Roeper Review*, 15(1), 4–6.
- Davis, R. (1991, May). *Learning how to learn: Technology, the seven multiple intelligences and learning*. Paper presented at the spring CUE Conference, Palm Springs, CA.
- Fitzpatrick, E., Askin, R., & Goldberg, J. (2001, October). *Using student conative behaviors and technical skills to form effective project teams*. Paper presented at the thirty-first annual ASEE/IEEE Frontiers in Education Conference, Reno, NV.
- Gerdes, K. E., & Stromwall, L. (2008). Conation: A missing link in the strengths perspective. *Social Work*, 53(3), 233–242.
- Grossman, A. H., & Kerner, M. S. (1998). Self-esteem and supportiveness as predictors of emotional distress in gay male and lesbian youth. *Journal of Homosexuality*, 35(2), 25–39.
- Herbe, R., Thielenhouse, M., & Wykert, T. (2002). *Improving student motivation in reading through the use of multiple intelligences*. Unpublished research report, St. Xavier University, Chicago.
- Hilgard, E. R. (1980). The trilogy of the mind: Cognition, affection, and conation. *Journal of the History of Behavioral Sciences*, 16, 107–117.
- Hoffman, E. (2001). *Psychological testing at work: How to use, interpret, and get the most out of the newest tests in personality, learning style, aptitudes, interests, and more!* New York: McGraw-Hill.

- Huitt, W. (1999). *Conation as an important factor of mind*. Valdosta, GA: Valdosta State University. Retrieved February 12, 2007, from <http://chiron.valdosta.edu/whuitt/col/regsys/conation.html>
- Kanfer, R. (1988). Conative processes, dispositions, and behavior: Connecting the dots within and across paradigms. In R. Kanfer, P. Ackerman, & R. Cudeck (Eds.), *Abilities, motivation & methodology: The Minnesota symposium on learning and individual differences* (pp. 375–390). Hillsdale, NJ: Lawrence Erlbaum.
- Kolbe, K. (1990). *Conative connection*. Phoenix, AZ: Kolbe Corporation.
- Kolbe, K. (2004). *Powered by instinct*. Phoenix, AZ: Momentum Press.
- Kolbe, K. (2005). *Perfectly capable kids: Discovering and building on the natural abilities within every child*. Presentation to Kansas State Department of Education.
- Kolbe, K., & Gerdes, K. E. (2007). *Research on the distribution of conative modus operandi of teachers and students, including students with ADD/ADHD*. Unpublished report, Center for Conative Abilities, Phoenix, AZ.
- Kolbe, K., Young, A., & Gerdes, K. E. (2008, March). *Striving instincts and conative strengths: Assessing the test-retest reliability of the Kolbe A Index*. Paper presented at the Western Academy of Management Conference, San Diego, CA.
- Kolbe Corporation. (2002). *Kolbe statistical handbook: Statistical analysis of Kolbe indexes*. Phoenix, AZ: Author.
- Lingard, R., Timmerman, B., & Berry, E. (2005, October). *Using the Kolbe A conative index to study the retention of computer science students*. Paper presented at the thirty-fifth annual ASEE/IEEE Frontiers in Education Conference, Indianapolis, IN.
- Lorenzo-Hernandez, J., & Ouellette, S. C. (1998). Ethnic identity, self-esteem, and values in Dominicans, Puerto Ricans, and African Americans. *Journal of Applied Social Psychology, 28*(21), 2007–2024.
- Rosenberg, M. (1989). *Society and the adolescent self-image* (Rev. ed.). Middleton, CT: Wesleyan University Press.
- Schur, N. (1990). *1000 most challenging words*. New York: Ballantine Books.
- Snow, R. E., & Jackson, D. N. (1993). *Assessments of conative constructs for educational research and evaluation: A catalogue* (CSE Technical Report 354). Los Angeles, CA: National Center for Research on Evaluation.

Copyright of *School Social Work Journal* is the property of Lyceum Books, Inc. and its content may not be copied or emailed to multiple sites or posted to a listserv without the copyright holder's express written permission. However, users may print, download, or email articles for individual use.