

I. Conative Stress as a Predictor of High Absenteeism

In a study conducted in 1992, 60 employees from a national marketing firm, half of whom had the highest absenteeism in the company and half of whom had the lowest absenteeism were studied. Each employee completed an individual Kolbe A Index and Kolbe B Index for their own position. The supervisor of each employee also completed a Kolbe C Index for the employee's position. The results of the study indicated that fifty percent of the high absenteeism group were experiencing conative stress while only 20% of the low absenteeism employees were experiencing similar stress. Years of employment and gender were analyzed to ensure that they were not confounding factors in the results....While some other factors may have contributed to absenteeism, neither length of employment or gender proved to be significant factors, but 30% of the difference in absenteeism was attributable to conative factors.

In a study completed in 1992, 50 staff-level employees were selected by a national food processing company to study absenteeism. The employees were all rated on a three-point scale for absenteeism during 1990. There were 16% of the employees in the medium to high range of absenteeism representing more than one week off during the previous year. Of that group 62.5% were experiencing conative tension or strain, a rate more than three times that of the rest of the group.

II. Conative Stress as a Predictor of Turnover

An independent Kolbe consultant conducted a study in 1991 in which he used the Kolbe to predict branch manager turnover in a national financial services company. His study included all 483 branch manager trainees hired in 1991 who were divided into three approximately equal groups: 1) a control group which was not given the Kolbe, 2) a study group of trainees given the Kolbe whose scores fell outside the recommended range but whose managers were trained in conation to respond to the conative dissonance, and 3) a study group of trainees whose scores fell within the recommended range. At the end of six months, 11.7% of the group that had not used the Kolbe had left the company for job-related reasons, 5.5% of those who were conatively mismatched, but whose managers tried to mitigate the conative dissonance by using the trainee's Kolbe results had left for job-related reasons and none of the conatively-matched trainees left for job related reasons. Dr Deems (the study conductor) concluded, "Selection within the recommended Kolbe range resulted in 100% retention of the desired Branch Manager-trainees."

III. Consequences of Team Conative Dissonance

If the employee functions as part of a team, mental energy may be dissipated through conative conflict due to polarization, which results from members of a team having significantly different conative approaches to resolving problems and there are not team members who can serve as a bridge through accommodating their disparate approaches. Unproductive use of team mental energy can also result from inertia – too many team members who all approach a team problem in the same way. The best conative teams are those that are comprised of an appropriate conative balance to provide the optimal opportunity for synergy between the conative approaches. An inappropriately conatively constituted team may melt down and prove wholly ineffectual despite significant cognitive skills or affective good will.

Innovation Teams

In a study conducted at the University of Chicago School of Business in 1990, 53 students in an entrepreneurship course participated in groups which were administered the Kolbe and then placed into

three groups. The first group had insistent Fact Finder, the second group all insistent Quick Start, and the third group was structured for conative synergy. As predicted, the first group probed for additional information and were deliberative and evaluative, but were unable to complete the designated group task. The second group was similarly unable to accomplish their task, but their instinctive drive to innovate, improvise, and experiment was responsible for their inertia. **As predicted, the third group, which had each conative insistence and resistance represented, was the most successful in accomplishing the assigned task,** since they were able to utilize the different strengths of group members in collaboratively meeting the group goal.

Using the Kolbe as a selection instrument allows an employer to ensure that an employee is in a position in which they will not experience conative stress due to conative requirement that they cannot instinctively meet.

IV. Forecasting Team Performance

In 1997, a division of a major chemical producer performed a retrospective analysis of twelve teams using the Kolbe Forecast software. The results were quite remarkable.

Kolbe analyzed the teams with the Forecast software and generated the figured displayed below. The company then provided Kolbe with its own internal rating and rankings of the teams. This internal rating was based solely upon the extent to which each team reached its stated goals and objectives during the evaluation period. The chemical company identified three groups consisting of high performers, mid-performers and poor performers.

Chemical Company Teams	Kolbe Viability Rating	Kolbe Rank	Company Rating	Eastman Rank
Team Four	93	1	100	1
Team Nine	90	2	100	2
Team Five	89	3	100	3
Team Three	82	5	100	4
Team One	83	4	100	5
Team Two	74	9	100	6
Team Ten	80	6	100	7
Team Eight	76	8	93	8
Team Twelve	78	7	84	9
Team Eleven	59	11	59	10
Team Seven	50	12	100	11
Team Six	53	10	90	12

Kolbe found a strong correlation between the Forecast results and the rankings done by the division executives. Forecast predicted with amazing accuracy which teams would have a high probability of success and which ones would not. Furthermore, the program also accurately identified both the top and bottom performers in the group.

One Eastman executive commented on the accuracy of the Forecast results:

"We were surprised that they were as close to what we had foreseen in real life as they were. We were assuming they would have a ballpark accuracy, but it was much closer than that. We would have been satisfied with ballpark."

Based upon the retrospective analysis, Eastman has decided that in the future they will not put a team to work until they have evaluated the Forecast projections:

"I'm a big believer in team success. Teams that are successful help morale, productivity and bottom line results. In this world today, in every part of our lives, we work in a team environment. What got me excited is that here is a tool that can help us increase the number and the likelihood of success of groups of people we put together. What we would do is propose a team and do the forecast to determine their probability of success and then decide whether to go forward or make adjustments..."

The benefit for any company is the ability to examine how a team will perform prior to its inception. Rather than waiting until the team is assembled and dealing with the problems later, Forecast allows you the opportunity to predict performance and make adjustments to team configurations before the problems arise. This can increase the probability of success for a team dramatically and often results in both time and cost savings. As one Eastman executive put it:

"To me, Forecast gives us the capability to meet projects on a schedule and within budget more effectively. Ten to 20 percent overruns are not unusual in projects. I think using Forecast, you can increase the likelihood of not having that 10 to 20 overrun in cost. I don't know anyone who would turn down a 10 to 20 percent improvement in project completion capabilities."

V. Kolbe Selection for Life Insurance Sales

Population

This is a study of 1031 individuals whose primary job was self-reported as Insurance Sales and whose performance in the year prior to this study was measured by sales revenues of life insurance products. All respondents were working in life insurance General Agencies in the U.S. or Canada.

Process

All 1032 individuals completed the Kolbe A Index after their performance levels for the previous year had been determined either by self reported total dollar sales or by total dollar sales as reported by supervisors. All voluntarily completed the Kolbe A Index, which in every case was computer scored by Kolbe Corp. The respondents were then separated into three groups, by level of sales revenue:

High Performers included 520 individuals who had qualified for the insurance industry Million Dollar Round Table (MDRT) in the same year by achieving sales revenue from their individual production in the top 5% of the industry for that year.

Average Performers included 425 individuals who had not qualified for the MDRT in the year of the study, but whose sales revenue was within one standard deviation of the average for the industry in the same year. All of these individuals had been in the “insurance sales” job title for at least four years.

Low Performers included 86 individuals who had not qualified for the MDRT, and whose sales revenue production in the previous year was outside one standard deviation from the average for the industry and at least 25% below the average for the industry. All of these individuals had been in the “insurance sales” job title for at least two years.

Results

Results of the Kolbe A Indexes taken by the High Performers were analyzed electronically to determine the Range of Success for this population in each Kolbe Action Mode. This range is determined by a proprietary algorithm which is derived from the average level of intensity in each of the Action Modes plus and minus the standard deviation of the scores. This range reflects the conative characteristics which best match the Kolbe A Indexes of high and low performers as well as the expectations of supervisors for how the job should be done.

Range of Success for High Performers: (N=250)

Mode	Range
Fact Finder	3 to 6
Follow Thru	1 to 5
Quick Start	6 to 10
Implementor	1 to 4

Kolbe recommended letter grades are derived from the combination of all four Ranges of Success. A proprietary algorithm within the Kolbe selection software converts Kolbe A Index raw scores, which determine those ranges, into letter grades for each individual whose Kolbe A result is compared to the established ranges. In this study all Average and Low performers' Kolbe A scores were compared to High performers' Kolbe A scores electronically, and every individual was given a computer-generated letter grade of A through F, including pluses and minuses from A- to D-.

An “A” grade indicates that the individual was within the determined Range of Success in every Kolbe Action Mode. An “F” score indicates the individual is outside the Range of Success in three or four modes by at least four units. The Kolbe recommended cut score for selection is a grade of “B-“ or above.

Following is the distribution of letter grades for the three levels of performance for the insurance sales people in this study.

Letter Grades for High Performers: (N=520)

Letter Grade	Distribution
A/A-	78%
B+/B	15
B-/C+	4
C/C-	2
D+/D-/F	1

Letter Grades for Average Performers: (N=425)

Letter Grade	Distribution
A/A-	7%
B+/B	24
B-/C+	56
C/C-	11
D+/D-/F	2

Letter Grades for Low Performers: (N=86)

Letter Grade	Distribution
A/A-	2%
B+/B	8
B-/C+	22
C/C-	39
D+/D-/F	29

Based upon Kolbe cut scores developed for the job title of Insurance Sales in the life insurance industry in the U.S. and Canada, 93% of the High Performers in the study would have been recommended to be in the candidate pool*. Only 7% would have been misidentified as being below the cut score. Among Average Performers, 69% would have been below the cut score.

Had the 51 general agencies participating in the study used the Kolbe cut scores for the High Performer study, 90% of those who proved to be Low Performers in the previous year would not have been selected.

*Kolbe does not recommend hiring based solely upon the conative dimension measured on the Kolbe A Index.

VI. Retention of Branch Manager-trainees

Population

This study included 483 Branch Manager-trainees in a financial services firm over a period of six months.

Process

In this study, the Kolbe A Index was part of a battery of tests given to all the participants. The other tests were either cognitive or affective; the Kolbe was the only test of the conative part of the mind.

Using the Kolbe methodology, a Range of Success for this position was created from the Kolbe A Index results of 24 high-performing branch managers, 24 low-performing branch managers and Kolbe C Index results completed by 24 district managers who had been identified as “successful branch managers” by the firm. Success and poor performance determinations were made based on performance evaluation data collected by district managers.

The 483 Branch Manager-trainees involved in the study were divided into three groups. The first group did not take the Kolbe Index but took a number of other instruments. The remainder of the trainees took the index privately during work hours and the results were generated by computer. These individuals were informed that the instruments were for research purposes only and would not impact selection, placement, promotion, evaluation or compensation. The group that completed the Kolbe A Index was then divided into two smaller groups based upon the letter grades for each participant generated by comparing their Kolbe A Index results to the Range of Success for their position. One group was made up of those individuals who received letter grades of B-or above; the other group was those who received letter grades of C- or below. The managers of the participants who took the Kolbe Index were trained on how to coach, communicate with, and motivate employees given the employees’ respective conative characteristics.

Results

The company involved in the research identified the rate of these employees’ separation from the company due to job-related issues as a key measure of job success. The separation rate and total turnover rates for the three groups involved in the study during the six months following the participants completing the Kolbe A Index show that the use of the Kolbe Concept in selection and employee management effectively reduced the influence of previously unmeasured variables affecting job performance and turnover. The identification of high-potential employees and the training of their managers was effective in achieving significantly improved retention.

Job Related Separation

Group	Utilization of Kolbe	% Job Related Separation
One	None	11.7
Two	Minimal	5.5
Three	Full	0

The job-related separation rate was based on the percentage of people hired who terminated for what the corporation assessed as job-related causes. The formula used was:

$$\# \text{ terminations} \div \text{Total \# in the study group}$$

Turnover

Group	Utilization of Kolbe	% Turnover
One	None	44.3
Two & Three	Minimal & Full Combined	26.4

The Turnover formula was defined as:

$$(\# \text{ terminations} \div 6 \text{ months}) \div (\text{average \# of employees in position} \times 12)$$

Selection within the recommended Kolbe Range of Success results in 100% retention of the desired Branch Manager-trainees.

VII. Retention of Semi-Conductor Managers

Population

Participants in this study were members of a defense contracting division of a large multinational semi-conductor company. All 64 employees of the top three management levels in the division were included in this blind study.

Process

In all, 64 employees completed the Kolbe A Index in private during working hours. In addition, every manager completed a Kolbe C Index to determine the conative requirements for each job at all three levels of management. Managers did not learn the results of either instrument until after the study was completed. The results of both indexes were calculated, and the score for each participant was compared to the requirements of his job as identified by his manager and quantified by the Kolbe C Index. The comparison yielded a rating for each participant of how closely their conative traits as identified by the Kolbe A Index

matched with the Kolbe C Index results. Next, the researcher considered performance evaluations by managers completed prior to the introduction of the Kolbe research. The evaluations were completed according to a standard used throughout the company, and included checklists covering job related skills (cognitive) and attitudes (affective).

Results

Three participants had the highest disparity between Kolbe A and C results. Each was a manager responsible for the fulfillment and monitoring of government regulations in bidding and assuring defense contract compliance. All three of these individuals had significant differences between their Kolbe A and C results in the Follow Thru Action Mode. In all three cases, the participant was preventative in the Follow Thru mode in their Kolbe A result. The Kolbe C Index results for all three identified their jobs as requiring initiation in the Follow Thru Action Mode. The fact that the three worked together and shared the conative misalignment magnified the potential for problems related to the list of the requirements in Follow Thru to: design systems, develop procedures, organize materials and presentations, and follow guidelines.

Unknown to Kolbe, prior to completing the Kolbe Index and unknown to the employees when they completed the Index, the unit these three managers lead was found to be in non-compliance with government regulations. The company later was given steep fines and reprimands by the federal government. Two of the three managers singled out by the Kolbe analysis as having the most divergence between their Kolbe A Index and Kolbe C Index results for their job were terminated for cause as a result of the non-compliance with government regulations. The third was removed from this division and demoted to a training role in a non-business unit.

The fourth greatest disparity between Kolbe A and C results in this study was found in a manager leading an engineering group. His Kolbe A results indicated that he initiated at the 9 level in Quick Start, the Kolbe C Index indicated that his job demanded preventative Quick Start results (a score of 2 on the Kolbe Index scale). A performance evaluation of this manager completed prior to collection of data by Kolbe stated that the manager "oversold" production capabilities and promised "impossible deadlines." Both the ability to sell and the need for a sense of urgency regarding deadlines are characteristics identified by the Kolbe A Index as being found in people insistent in the Quick Start Action Mode, which was this manager's result. Both qualities were indicated on the Kolbe C result as undesirable.

This manager was one of the few people with involuntary termination in year eight of the study. These four individuals had the greatest difference between the Kolbe A and C results. The actions of the first three had preceded the beginning of the Kolbe research and had been under investigation prior to the completion of either the A or C indexes. The lengthy investigatory process that resulted in their termination or demotion was done by individuals who no knowledge of the Kolbe project. Therefore, Kolbe results did not influence those outcomes. While the study has not yet been completed, the data collected to date indicates that these four individuals represent a significantly disproportionate share of the total number of managers removed from the company for inferior job performance.