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Does the United States Air Force Academy's Training Philosophy Really Work?

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Abstract

This paper provides a summary review of the effectiveness of the United States Air Force Academy's "Academy Training Philosophy" (ATP), based upon all known studies. Results at both the U.S. Air Force and Coast Guard Academies indicated: (a) positive acceptance of both the model as a whole and with the individual ATP principles; (b) ATP behaviors correlated strongly with supervisory effectiveness ratings; and (c) military performance ratings of freshmen subordinates were significantly higher for those supervisors using ATP than those supervisors not using ATP.

Since 1984 the United States Air Force Academy (USAFA) has used a set of principles for supervision and leadership known as the "Academy Training Philosophy" (ATP) [Rosebush, 1985], for the purpose of helping officers and cadets achieve a mutual respect relationship with their subordinates while maximizing performance. There are numerous supervisory behaviors endorsed in ATP, clustered into five main components: (1) setting clear expectations for the subordinate; (2) providing sufficient rehearsal opportunities for the subordinate to acquire the necessary skills for the job; (3) providing on-going feedback about the subordinate's performance; (4) providing appropriate consequences commensurate with the previous feedback; and (5) providing growth opportunities through establishment of strong self-esteem and realistic challenges.

The ATP has also been utilized at other Air Force settings (e.g., the Military Airlift Command and the Strategic Air Command), other Air Force commissioning programs (e.g., Officer Training School and the University of Pittsburgh Reserve Officer Training Corp), sister-service training centers (e.g., the U.S. Military Academy, the U.S. Coast Guard Academy, and the Citadel), and at civilian training centers (e.g., the North Carolina Highway Patrol Academy and the University of Minnesota School of Education). Although ATP continues to be used at numerous training institutions, a logical question becomes: "Does the Academy Training Philosophy really work?" This paper provides a review of the known findings regarding the effectiveness of ATP.

Receptivity of the ATP Model

One way to assess ATP's effectiveness is to ask the users what their subjective impressions of ATP are and whether the application of the model results in effective supervisory performance. The only known study of ATP receptivity occurred at the USAFA during the first summer in which the model was introduced (Rosebush & Bryant, 1984). Officers and cadets were surveyed

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both immediately after they received initial ATP training and again after they had a chance to apply ATP's principles during Basic Cadet Training (an intensive military indoctrination program involving senior cadets supervising and training the incoming freshmen cadets). In the survey administered to 22 officers and 386 cadet cadre immediately after the initial ATP training, 93% of the respondents believed that ATP was a relevant approach to military indoctrination training, plus 97% believed "that ATP should be used by a supervisor to a subordinate". Similarly, the follow-up survey of the ATP trained officers and cadet cadre showed that 89% described themselves as successful in working with subordinates when applying ATP; only 4% responded that they were unsuccessful. Additionally, when asked "Should ATP be used again next Basic Cadet Training?", 73% said "yes" and 20% said "no". Finally, when asked "Should ATP be used during non-indoctrination times", 91% said "yes" and 4% said "no". These surveys indicated that officers and cadets who had received ATP training believed that the ATP model was relevant for military indoctrination training, beneficial to supervisor-subordinate relationships, and resulted in successful supervision when applied.

Stronger support for the effectiveness of ATP was gathered by USAFA's Office of Institutional Research, which annually asks all "basic cadets" (i.e., incoming freshmen) to describe "What was the most motivating experience for you during this BCT?" In the year previous to the introduction of ATP (i.e. the class of 1987), 11% of the basic cadets indicated that working with the cadet cadre was their most motivating experience (Rosebush & Bryant, 1984). However, when this same question was asked of the basic cadets during the summer in which ATP was first applied (i.e., the class of 1988), 21% of the basic cadets now responded that the cadet supervision was their most motivating experience. Similarly, when the class of 1987 was asked "What was the most demotivating experience for you during this BCT?", 41% responded "working with the cadet cadre" (this was also the most frequent negative response for that year). Dramatically, when this same question was asked of the class of 1988, only 3% of them indicated that the cadre was their most demotivating experience of BCT. While the positive receptivity toward the cadet cadre cannot necessarily be attributed to ATP (although the addition of ATP, for the most part, was the only difference from the previous year) there was nonetheless a rather remarkable change in perceptions toward cadet supervision in only a one year period.

Acceptance of the Individual ATP Concepts

Whereas the Rosebush and Bryant (1984) study provides evidence of support for the ATP model as a whole, a related question concerns "Do the individual concepts espoused in ATP really work?" In a three-year study of ATP beginning in 1986, 93 randomly selected cadets (all familiar and trained as supervisors in ATP's principles) wrote 848 behavioral items which they believed accurately described ATP-style supervision (Rosebush, 1989). Many of these items were redundant and therefore eliminated, producing a reduced list of 117 non-redundant items.

This reduced list was given to 140 randomly selected cadets (different from the first group of cadets, but also trained in ATP's principles), who were asked to (a) determine if each item really was an ATP principle, and (b) determine whether each item was one which "you have seen the really good cadet supervisors at USAFA do more of than the average supervisors, and that the average supervisors do more of than the poor supervisors". Of the 117 items, 44 of them (representing principles from each of ATP's five main components) received unanimous agreement as items which really represented ATP principles. Of these 44 remaining individual concepts, two of them (5%) were seen as effective in discriminating superior from average (and, average from inferior) supervisory performance by 90-100% of the cadet judges. Similarly, 24 of the individual concepts (55%) were rated as effective by 80-89% of the judges; 13 concepts (29%) were rated as effective by 70-79% of the judges; 4 individual concepts (9%) were rated as effective discriminators by 60-69% of the judges; only 1 item (2%) was rated as effective by 50-59% of the judges; and, none of the 44 concepts were seen as ineffective discriminators by a majority of the judges. This study seems to provide support that the individual concepts espoused in ATP are concepts which tend to be applied more frequently by the really good supervisors, as compared to the average or poor supervisors.

Relationship of ATP Concepts to Perceived Supervisory Effectiveness

If the Academy Training Philosophy really works, then one would expect to see a significant positive relationship between a supervisor's application of ATP's principles and the perceived effectiveness of the supervisor. An 86 item survey was given to 243 randomly selected cadet subordinates at USAFA to assess both the frequency of their cadet supervisors' application of ATP principles and the subordinates' perceptions about their supervisor (Rosebush, 1989). The 86 items were used to construct several ATP and outcome scales. The three outcome scales assessed the amount of respect for the supervisor, the amount of motivation subordinates feel toward achieving their full potential, and the amount of loyalty toward wanting to continue to work for their supervisor. The correlation between the 65 aggregated ATP items and the "respect" scale was .74. Similarly, the correlation between the combined ATP items was .77 with the "motivation" scale and .75 with the "loyalty" scale. All three correlations were significant at the $p < .001$ level.

Similarly, a 93 item survey was administered to 264 randomly selected USAFA cadet subordinates (different from any cadet group previously assessed) in order to determine the relationships between ATP's principles and perceived supervisory effectiveness (Rosebush, 1989). Forty-eight items (which had a combined Cronbach's alpha value of .97) were used to assess the cadet supervisor's frequency of applying ATP's principles, and were correlated with three different outcome scales used to measure the supervisor's perceived global effectiveness. The first global effectiveness scale was a two-item scale known as the "Supervisor Evaluation Questions" (which has a correlation of .83 between

the two items). The second and third supervisory effectiveness scales were the "job-in-general" and the "supervision" scales from Smith, Kenjall, and Hulin's (1982) "Job Descriptive Index" (JDI). Simply put, these three scales were used to assess subordinates' perceptions regarding their supervisor's overall effectiveness. The correlation between the combined 48 ATP principles and the "Supervisor Evaluation Questions" was .80, while the correlation with the JDI's job-in-general scale was .71, and .65 with the JDI's supervision scale. All three correlations were significant at the $p < .001$ level. Certainly, correlations never prove causality, but there appears to be a very strong relationship between supervisors' application of ATP's principles and three global assessments of supervisory effectiveness.

Does the Application of ATP Improve Subordinates' Performance?

Much of the evidence in support of the Academy Training Philosophy reported thus far is predominantly subjective assessments by the supervisors and subordinates. A more difficult criterion to satisfy is whether the performance of subordinates whose supervisors apply ATP's principles is better than the performance of subordinates whose supervisors do not apply ATP's principles. The only known study of this type occurred when 457 USAFA cadet subordinates were administered a 48 item survey to assess the frequency in which their cadet supervisors were applying ATP's principles (Rosebush, 1989). USAFA's Military Performance Average (MPA) was used as an outcome measure of subordinates' military performance. The MPA is a combination of officer and cadet evaluations of any given cadet, and is computed on a rating scale much like an academic grade point average (i.e., scores ranging from a high of 4.00 to a low of 1.00). First, the cumulative MPA (i.e., the average of all MPA scores ever obtained) of each cadet in the study was obtained as a reference point for how strong a military performer each cadet had been prior to the semester being studied. Next, each subordinate rated his/her cadet supervisor on how frequently the 48 ATP principles were being applied. Finally, the subordinates' end-of-semester MPA rating was obtained. The hypothesis was that the subordinates of those supervisors who were applying the ATP would have a significantly higher MPA rating (after the subordinates' previous cumulative MPA ratings had been partialled out of the current semester's MPA ratings) than the subordinates of those supervisors who were not applying ATP. This test of the semipartial correlation, using only freshmen inputs, did prove to be statistically significant at the $p < .10$ level (which is the commonly accepted level for assessing statistical significance for semipartial correlations). In other words, the military performance of freshmen cadets did improve (above and beyond their previous cumulative performance) as a function of how frequently the supervisor was applying ATP's principles.

Effectiveness of ATP at the U.S. Coast Guard Academy

While ATP is applied at numerous training settings other than the USAFA, the only known published study on ATP's effectiveness in another setting occurred at the U.S. Coast Guard

Academy (USCGA) [Blake & Potter, 1992]. The USCGA developed a survey for assessing both the frequency of their cadet supervisors' application of ATP's principles, plus several outcome variables. Significant correlations (at the $p < .01$ level) were found between the supervisor's application of ATP and the supervisor's: (1) "goal emphasis", (2) "positive motivation" expressed, and (3) the absence of "harsh treatment". Significant ($p < .01$) third-order partial correlations (i.e. evaluating one factor while controlling for the effects of the other factors) were also obtained on each of the outcome factors with the ATP factors. Additionally, correlations at the $p < .01$ level (ranging from .23 to .56) were found between the ATP factors and such individual outcome items as "admiration and respect for cadet supervisors", "cadre were good teachers", "I felt treated like a 'real' person", "I would not have wanted to leave my unit", and "this experience was a time of personal growth for me". Once again, correlational results prove nothing. However, the USCGA's results are remarkably similar to the USAFA studies, showing strong relationships between ATP and numerous positive outcome domains. Finally, the USCGA administered the above mentioned survey both in the first summer in which ATP was applied at their service academy (1987) and again in 1990. Results indicated that after applying ATP for three years the cadet supervisors' scores had significantly increased ($p < .001$) in useage of ATP behaviors, and that "negative affect" toward supervisors had significantly decreased (Blake & Potter, 1992).

Summary

Studies conducted on ATP consistently show support for its principles, as assessed by subjective perceptual measures and by military performance, both at the USAFA and at the USCGA. Nonetheless, much more study of ATP is needed, which will provide further insight into ATP's effectiveness.

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