The Goal Setting and Goal Orientation Labyrinth: Effective Ways for Increasing Employee Performance*

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ORGANIZATIONAL DYNAMICS, IN PRESS

EXECUTIVE SUMMARY

This paper reviews the relationship between goal setting and goal orientations. Three different types of goals (performance, behavioral, and learning) are examined in terms of their positive effect on performance. Goal orientations are an individual's preference for certain types of tasks in achievement settings. These traits affect (1) an individual's interpretation of feedback, (2) the saliency of different aspects of performance feedback, and (3) how individuals allocate their subsequent effort on tasks. Our review highlights the beneficial effects of setting a specific difficult learning goal when the task requires the acquisition of knowledge before it can be performed effectively.

The goal setting process is no easy task, but the effort is not only worthwhile, it is also essential for success in today's global business. Just as organizations strive to achieve certain goals, individuals also are motivated to strive for and attain goals. In fact, goal setting is among the most important motivational tools affecting the performance of employees and teams in organizations. More than 1000 studies have tested goal setting theory. What have we learned from this research?

First, a specific, challenging goal leads to higher performance than an easy goal, a vague goal, such as to do one's best, or setting no goal. The disadvantage of a vague goal is that it is too idiosyncratic, or ill-defined. The disadvantage of setting no goal is that it leads to a lack of focus and hence individuals wander aimlessly. The second finding is that the higher the goal, the higher the performance. There is a linear relationship between the difficulty of a goal and the resulting performance. Third, participation in decision-making, competition, and knowledge of results only increase performance to the extent that they lead to the setting of a specific, high goal. However, there are four boundary conditions that must be satisfied for these relationships to hold.

First, the person must have the *ability* to attain the goal. The relationship between goal difficulty and performance levels off when individuals reach the limit of their ability. Second, the person must have the *situational resources* (e.g., financial, technological) to attain the goal. Situational constraints must be minimal to allow people to fully utilize their ability. Third, the person must be *committed* to attaining the goal. If a person lacks the ability to attain the goal, and/or lacks the resources necessary for goal attainment, goal commitment is unlikely to be high. Worse, perceptions by supervisors that they lack the resources and hence the ability to attain the goal they were assigned is related to them subsequently abusing their subordinates. As for goal

commitment, if it does not exist, by definition the goal has been rejected. Finally, an individual must receive objective *feedback* on progress towards goal attainment. Without objective feedback, a person will not know what to start, continue or stop doing to ensure that the goal is attained. One of the major reasons why video games can be so addictive is because players receive objective feedback immediately after each move. A player is either rewarded or punished after each decision. Of course, there are many situations in the workplace in which this type of feedback is not possible due to the scope and nature of the task.

Four factors explain the goal-performance relationship. A person *chooses* to focus on a particular goal to the exclusion of other possibilities. A specific, high goal that is *chosen* increases *effort* over and above an easy, vague, or no goal. Moreover, given the presence of the four boundary conditions, people *persist* until a specific high goal is attained. Arguably, most important, a specific, high goal cues an individual to draw upon extant *strategies* or discover new ones for attaining the goal.

An example of how goal setting works can be found in the NASCAR racing team of Jeff Gordon. Winning is often determined by how well the pit crew performs tire changes, refueling, and other tasks. The team hired a consultant to develop their teamwork competency. The pit crew set a specific, challenging goal of having the race car leave the pit within 13 seconds of its arrival. They determined that for every second longer, the car lost 300 feet to a competitor (assumes a car is travelling at 200 miles per hour). Therefore, with the help of the consultant, the crew developed a set of specific codes to signal Gordon whether they would be changing two or four tires, fully gas the car, or put just enough gas into the car to finish the race.

Setting a Goal

Research has found that a self-set goal, an assigned goal, and a goal set as a result of employee participation in decision-making are effective ways for increasing job performance. An assigned goal from a supervisor is just as effective for increasing job performance as a goal that is set participatively with an employee provided that the rationale for the assigned goal is given, and the difficulty level of the two types of goals are the same. A self-set goal is often lower than a goal that is assigned or set participatively, hence performance is lower than it is in the latter two conditions. Nevertheless, self-set goals are at the core of self-regulation.

Types of Goals

There are three types of goals: behavioral, performance, and learning. There are many goals for which an employee might be held accountable (e.g., ethics, creating a shared vision, empowering others) that are not easily reducible to an outcome measure. Hence, an individual is measured on the behaviors demonstrated (e.g., gets the input of those who will be affected by the strategy before implementing it) within a given time period, a specific goal is set to maintain a high score or increase a lower one on a behaviorally-based assessment.

The vast majority of goal setting studies have focused on performance goals. The focus of a performance goal is on an outcome rather than on the behaviors that lead to a given outcome. Examples of performance goals include sales divided by the hours an employee worked, revenue generated, weight lost, and costs reduced. Whereas a behavioral goal in golf might be to slow down the backswing, a performance goal is set in terms of the desired final score (e.g., break 80, sink the ball with two putts).

Service firms often require setting both performance and behavioral goals for their partners and staff. Todd Diener, retired president of Chili's restaurants, used both goals to evaluate the effectiveness of each of its 1500 restaurants. Each year, every manager sets key

performance indicators for their restaurant in consultation with their regional manager. Goals such as sales, EBITDA, turnover, and guest satisfaction are used as performance goals. Behavioral goals encompass training regimes for hourly employees that include role playing classes that focus on hospitality, greeting behaviors, and the like. When the appropriate job behaviors are not known, a learning goal should be set.

Learning Goals and Mindsets

Setting a specific, difficult performance goal on tasks that are novel or complex for an individual can have a deleterious effect on performance. Individuals who lack the requisite knowledge and competencies to perform the task effectively are often distracted by factors that are not relevant to mastering the task. For example, the setting of a specific, difficult performance goal in the absence of knowledge and skill can increase evaluation apprehension and a mad scramble for immediate results. Both interfere with the learning process. An individual achieves better results when a specific, difficult learning goal rather than a performance goal is set.

A learning goal frames instructions in terms of knowledge or competency acquisition. For example, at Kisco Senior Living, executive directors have been asked to set five goals that will help the organization attract residents, three goals to reduce caregiver turnover, and three goals to improve residents' quality of life. Strategies/behaviours are then developed to attain each of these learning goals. Thus, unlike a performance goal, a learning goal draws attention away from a specific task outcome in that the emphasis is on discovering, mastering or implementing effective plans, processes or procedures necessary to perform a task. This is important because performance on a task that is complex for an individual is a function of

identifying and implementing appropriate strategies rather than sheer effort and persistence alone.

Winters and Latham were the first to show the beneficial effect of learning goals over performance goals. They found that people assigned a specific, difficult performance goal had higher performance than their counterparts with a "do your best" or a difficult learning goal. On a complex version of the task, however, where the acquisition of knowledge was necessary before the task could be performed, participants with a specific, difficult learning goal had higher performance than those with a specific, difficult performance goal or a vague goal "to do their best."

These findings have been replicated in numerous studies that included students, managers and their subordinates, and entrepreneurs. These studies have taken place in both laboratory and field settings. The tasks that the participants worked on are diverse: class scheduling, business and defense simulations, subarctic survival ranking tasks, stock market predictions, building décor objects, completing excel sheets, cognitive problem solving, completing MBA courses, and negotiation. The time limits for performing these tasks have ranged from 20 minutes to 3 hours to a full academic year. Researchers have shown the effectiveness of learning goals on individual, dyadic, team and departmental performance. For example, negotiators with a specific, difficult learning goal had lower levels of impasse and were judged to be more cooperative in creating settlements that incorporated benefits for both parties as opposed to those with a specific, difficult performance goal, or a goal to do your best.

Whereas our colleagues have examined the beneficial effects of goals as a state, Carol Dweck has done extensive research on performance and learning goals as a trait or mindset. People with a fixed mindset believe that their basic qualities such as ability or intelligence are

fixed traits. That is, people with this orientation view ability as a given. Hence these people believe they cannot improve their ability in any meaningful way. They spend their time documenting their traits instead of developing them. They strive for success and to avoid failure so as to maintain their sense of being competent. They believe that talent alone is responsible for their success. Dweck called this trait a performance goal orientation.

On the other hand, people with a growth mindset thrive on challenge. They are said to have a learning goal orientation. They see failure not as evidence of low intelligence, but as a challenge for their personal growth, and for stretching their existing abilities. People with a growth mindset believe that their basic abilities can be developed through hard work and effort. Consider the results of a study in which researchers examined the emotional reactions of performance and learning goal oriented people when they received negative feedback on their performance. The negative reactions to feedback were negatively related to subsequent goal difficulty level for people with a fixed mindset. They resigned themselves to poor performance as a reflection of their inability to master the material. Some even dropped out of the study. In contrast, for people with a learning goal orientation, negative emotional reactions were not related to how high they set their subsequent goals. Believing that failure is about learning, they adapted their strategies to learn the materials better for the next task. This finding is consistent with Dweck's assertion that a learning goal orientation predisposes adaptive responses to adverse events and thus fosters high performance on subsequent tasks.

Traits are largely inherited, and relatively stable dispositional variables. Our research shows, however, that setting a learning goal (a state) is effective even for people with a performance goal orientation. In short, state trumps trait. Setting a learning goal for tasks requiring knowledge acquisition is effective for everyone.

Most studies have focused on learning goals for individuals. Consistent with research on performance goals, the higher the specific learning goal, the higher the person's performance. A specific difficult learning goal leads to greater cognitive effort to discover the task-relevant strategies, processes and procedures to master a task than an easier learning goal. As has been found with a performance goal, commitment is required for the learning goal difficulty-task performance relationship to hold. Erik Spoelstra, a basketball coach for the Miami Heat is a firm believer in setting high learning goals for his players and the team. He believes that players' teamwork abilities (e.g., moving without the ball, setting up picks and rolls) can be developed through dedication and hard work; and that brains are just the starting point. Losses present a series of new challenges that can be overcome through hard work and developing new skills. As Bill Bradley, a former pro basketball player and U.S. senator from New Jersey stated, "Individuals don't win NBA championships, teams win." Establishing learning goals creates motivation, winning on the floor and also enhances productive relationships among players, coaches and owners. Winning increases commitment to a learning goal because it provides positive reinforcement.

The Simultaneous Pursuit of Learning and Performance Goals

Employees in most organizations are required to keep abreast of leading edge knowledge, master novel tasks as a result of new realties in the marketplace and at the same time fulfill performance expectations. We now turn our attention to examining what happens when both a specific, difficult learning and a performance goal are set.

Several researchers have found a negative curvilinear relationship between the combined difficulty levels of setting both a learning and a performance goal on performance on a moderately complex task. An intermediate level of total goal difficulty led to the highest

performance. Performance was low when the total goal difficulty exceeded an individual's ability, and even worse when the goal was easy to attain. Similarly, on a highly complex task, another researcher found that simultaneously assigning a specific difficult learning goal and a do your best performance goal resulted in higher performance than any other goal combinations, including setting only a performing or only a learning goal. Performance was the worst when both the learning and performance goals were specific and difficult.

Recently, researchers found that performance and learning goals that are set simultaneously enhanced product novelty and usefulness on a product development task relative to setting sequential goals. But, this relationship existed only when negative affect was low. Feelings of distress, anxiety, jitteriness, and tension can narrow a person's attention span, elicit off-task thoughts, and increase rigidity which in turn negatively affects performance.

In summary, simultaneously setting both a learning and performance goal can sometimes have a positive effect on performance. However, the combined goal level should not be too easy or too hard.

Factors influencing the relationship between goals and performance

Four factors influence the relationship between a learning goal and performance. One might think of these four factors akin to the volume knob on a TV. By increasing or decreasing the amount of these four factors, the relationship between goals and performance are either strengthened or diminished. We begin with cognitive ability because it affects an individual's capacity to respond to a challenge.

Cognitive ability. Individuals with lower cognitive ability benefit more from the setting of a specific, difficult learning goal than those with higher cognitive ability. Individuals with low cognitive ability benefit in particular from instructions to focus on discovering task effective

strategies whereas those with high cognitive ability do so automatically. A learning goal is not necessary when the task is straightforward (order taker at a fast food restaurant, assembly line worker at an automotive plant) for an individual with relatively high cognitive ability. This explains why people with low cognitive ability benefit more from a specific, difficult learning goal as opposed to a specific, difficult performance goal; and that the reverse pattern is true for individuals with high cognitive ability. An individual with high cognitive ability typically learns the task faster and hence can concentrate on the execution of task strategies to increase performance. Those lower in cognitive ability need to acquire the task relevant knowledge, and only then focus on attaining a desired performance outcome e.g., consistently attain a score in the 80s when playing golf). Initially focusing on a desired outcome typically distracts them from performing well.

Commitment. Commitment has a direct effect on performance. In addition, it moderates the learning goal – performance relationship. The relationship between commitment to a learning goal and an individual's performance as well as a department's performance is positive and significant. The linear relationship between the level of the learning goal and performance is stronger among individuals with higher rather than lower commitment to the goal. Thus, consistent with goal setting theory and the empirical results for performance goals, high commitment to a learning goal is essential for that goal to be effective in increasing performance.

Appraisal and Stress. Consciously setting a specific, difficult performance goal may have a deleterious effect on an individual's performance if the person lacks the ability to perform the task. As noted earlier, the resulting stress or perceived pressure to perform well may give rise to a host of negative emotions including feelings of tension, anxiety or frustration which diverts the requisite attention from strategy formulation and implementation. However, studies have also

shown that individuals who were assigned a learning goal experienced less tension and performed better on a problem-solving task despite receiving negative "bogus" feedback. A learning goal appears to act as a buffer against defensiveness from negative feedback. People who have either set a learning goal or have a learning goal orientation (trait) view a setback as a natural part of the learning process. Recall that a learning goal orientation is associated with an incremental belief that ability can be developed through effort. Effort is an efficacious strategy for developing the wherewithal needed for successful task performance. Therefore, how individuals appraise the goal setting process is of practical significance. An individual who appraises a goal as a challenge subsequently performs at a higher level than an individual who views the goal as a threat, regardless of whether a performance or learning goal is set. The practical implication of this finding is that it is important for a manager to help employees frame or reframe a goal as a challenge for enhancing their knowledge and skill rather than as a threat to exposing their low ability.

Goal congruence. The goal setting and goal orientation literatures are related yet distinct. For example, the goal setting literature emphasizes the content of goals and its effect on self-regulation activities (e.g., self-set goals, feedback seeking, practice, learning, or causal attributions) and subsequent performance. In contrast, the goal orientation research focusses on two distinct traits that affect motives for competence: performance (Dweck's fixed mindset) and learning goal orientations (Dweck's growth mindset). Instructions can be given to individuals so as to induce either a performance or a learning orientation. Performance instructions emphasize the importance of demonstrating competence. Individuals are encouraged to use the feedback they receive and their task score as a measure of their ability. Mistakes, they believe are to be avoided at all costs. Learning instructions, on the other hand, emphasize learning, personal

development and the acquisition of knowledge and skill. The importance of practice, feedback, and errors are emphasized as learning opportunities.

Fortunately, as noted earlier, goal content has a stronger effect on self-regulation and performance than either goal orientation. This is in part because goal setting creates a "strong situation" that masks or attenuates the effect of trait-like variables. A congruent learning goal orientation and setting a learning goal contributes to high self-efficacy, low negative affect and exploratory behavior on a task that requires knowledge acquisition. The practical implication of these findings is that performance management and training interventions should focus on setting specific, difficult learning goals, encouraging a growth mindset, and hire people with a learning goal orientation.

Links to performance

Let's assume than an individual has challenging goals and that the factors previously mentioned support the attainment of those goals. What are the links that affect performance? We have identified three important links.

Self-efficacy and strategy. Setting a learning goal for knowledge acquisition, the belief that "I can do this," increases self-efficacy. That is, self efficacy is higher for those who are assigned a learning as opposed to a performance or a do your best goal on a task that requires the acquisition of knowledge or skill. An individual with high self-efficacy remains committed to the specific course of action and hence persists when obstacles or setbacks to goal attainment are encountered. Individuals with high self-efficacy in goal directed behavior, develop a plan or strategy more so than those with low self-efficacy. General Electric is generally seen as having a learning culture. This has led to an organization that continually learns "from any source, anywhere," and to convert this learning into action. Self-confidence is an essential ingredient of a

learning organization. Confident people are open to good ideas regardless of their origin; and they identify and volunteer innovative ideas. This has led to extra-ordinary achievements at General Electric. Consistent with goal setting, information search and the identification of effective task strategies for goal attainment have a positive effect on performance which in turn enhances self-efficacy.

Commitment. Commitment has been shown to be an important link for the self efficacy-performance relationship when a learning goal is set. Individuals with high self-efficacy have more commitment to a learning goal than those with low self-efficacy. Commitment is a predictor of performance. On a task that requires the acquisition of knowledge and skill to perform it effectively, performance is affected by both self-efficacy and commitment to a learning goal.

Self-set goals. Assigned goals often lead to self-set goals. The assignment of a goal encourages individuals to also set a personal performance goal which in turn contributes to their performance. There are two reasons for this. First, the feedback that individuals receive from working on a task encourages self-set goals. The effectiveness of the strategies that are developed to attain a learning goal is often difficult for individuals to evaluate, at least in the short term. Hence, they typically self-set performance goals to help them evaluate whether their strategies are working. Chet Cadieux, CEO of QuikTrip, a convenience store chain of more than 600 stores with sales in excess of $8 billion dollars, sets performance goals for all employees. Performance goals are set for cleanliness, customer waiting time, credit-card transactions, and monitoring the length of time food stays warm on the warming trays. The entire focus is on assigning specific goals to employees and then permitting them discretion on how to attain them. Second, individuals have a bias for action – performance tends to be highly valued in

organizations and society… arguably even more so than the actual learning process. In Michael Lewis's book, *Moneyball,* he details how the Oakland Athletics developed a novel and stealth management system that enabled them to win games based on a player's ability to get on base. Thus, the learning that took place during the process of winning games resulted in the setting of performance goals.

As mentioned throughout this paper, the vast majority of goal setting studies have focused on goals that were either assigned, participatively agreed upon, or were self-set. Goals, however, can also be primed in the subconscious by external cues in the environment that activate a mental representation that is stored in a person's memory. For example, call center employees with a performance goal that was primed by a photograph of a woman winning a road race raised more monetary donations than those who were not primed. Mike McGuire, President of Andrews Distributing and Mike Barnes, VP of sales and marketing, have used a similar strategy. They posted pictures of the Dallas Cowboys winning the super bowl in distribution centers and then asked employees to remember how it feels to achieve high goals. Chen and Latham primed a learning goal using a photograph of Rodin's "The Thinker." This led to higher performance on a knowledge acquisition task than a primed performance goal and a no prime control condition. There was no significant difference between participants in the primed performance goal condition and those in the no prime control condition. These results provide further evidence that a primed goal produces outcomes similar to that of a consciously assigned goal. This research also suggests the importance of setting both conscious and subconscious goals in increasing employee performance.

Managerial Implications

Goal setting is a theory that works. Its usefulness for improving performance in organizational settings has been well established. We believe that it is important to distinguish between three types of goals: behavioral, performance, and learning. Behavioral goals should be set for outcomes that are not easily quantifiable (e.g., developing subordinates, behaving ethically) yet are important to an individual's and an organization's effectiveness. Performance goals should only be set on tasks that are straightforward for individuals (e.g., waitperson at a fast-food restaurant; a pit crew changing tires during a NASCAR race). Learning goals should be set when individuals have yet to master the task (e.g., mentoring others; crafting a strategic plan). Learning goals focus on the identification and implementation of effective strategies, processes or procedures necessary to perform a task effectively. A growing number of empirical studies show that setting a specific, difficult learning goal on a task that requires the acquisition of knowledge leads to better performance than a specific, difficult performance goal. The latter interferes with learning process and hence may have a deleterious effect on performance.

The causal relationships found for performance goals also apply to learning goals. A specific, difficult learning goal leads to higher performance than a specific, easy learning goal or a do your best goal. The higher the learning goal, the higher the performance on a knowledge or skill acquisition task within a person's ability scope.

Four factors affect the strength of the relationship between goals and performance. Managers should take into account how particular variables may enhance or undermine goal effects. Two that apply to performance goals are *ability* and *commitment*. We cannot think of any context where situational constraints would not affect the learning goal-performance relationship. For example, individuals need to be given adequate time to learn the strategies to perform a task that is complex for them. One study has shown that individuals with a learning

goal spent more time on a complex business simulation than those with a performance or a do your best goal. They gathered more information to make decisions, and then performed at a higher level than individuals with either a performance or a do your best goal. It is easy to envision that had they taken less time to complete the simulation or had gathered less task-relevant information, their performance would have suffered.

Similarly, we know of no situation where feedback does not affect learning goal effects. Feedback is essential to learning because it informs individuals whether they are progressing with respect to goal attainment. In fact, individuals with a learning goal often self-set a performance goal to evaluate whether their strategies or procedures are working. People have an innate desire to see how they are progressing and course correct if needed. Consider NASA and the Apollo 11 space mission. NASA endeavored to land a man on the moon and return him safely to earth. This was a hugely complex task. The engineers at NASA had developed a strategy to get Apollo 11 to the moon. It turned out that – for various reasons – the space craft was only 3% of the time on its projected path. The engineers and astronauts continuously checked and then corrected the trajectory of the space craft. Had they persisted with the initial strategy, and not responded to feedback, Apollo 11 would not have landed safely on the moon, let alone return to earth in one piece.

Research on learning goals has identified two additional factors that strengthen the goal-performance relationship: appraisal and goal congruence. For example, individuals who appraise their learning and performance goals as a challenge perform at a higher level than those who appraise these goals as a threat (e.g., to their self-esteem). Seeing the goal as a threat increases anxiety and frustration which in turn negatively affects self-regulation processes and subsequent

performance. The former group of people have a growth mindset and the latter group have a fixed mindset.

Studies have also shed light on the ways in which learning goals affect performance. The setting of a specific, difficult learning goal requires more effort and persistence to attain it than a specific, easy learning goal. The setting of a learning goal enhances self-efficacy which in turn leads to greater effort and persistence to attain the goal. Individuals with high rather than low self-efficacy identify more task-relevant strategies that help them to perform the task effectively. Effort, persistence and strategy are three of four factors that facilitate performance goal effects as well. Self-efficacy, commitment and self-set goals are also factors affecting learning goal effects. For example, individuals with high self-efficacy have higher goal commitment than those with low self-efficacy. Commitment increases performance. The practical significance of these findings is that managers should design specific initiatives to increase an employee's self-efficacy and goal commitment to further enhance the effect of learning goals on performance. Learning goals often lead to the setting of personal performance goals. Learning goals and performance goals can be pursued simultaneously; however, the combined goal difficulty level should neither be too difficult nor too easy.

Supervisory and managerial support to attain high levels of performance is important in the goal setting process. Most managers and employees bring a "strong bias for action" and hence focus on performance goals. However, in most situations, performance is a function of learning task-effective strategies as well as effort and persistence. Simultaneously setting both learning and performance goals may lead to better performance than a focus solely on performance goals if the person needs to acquire knowledge to perform the task. How then can supervisors and managers encourage and support employees to spend time in a learning mode to

discover how to optimally perform a task, or discover strategies to further enhance organizational effectiveness?

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* The authors would like to acknowledge the helpful suggestions made by Bill Cron, Todd Diener, Mike Harvey, Don Hellriegel, Randy Schuler and Ralph Sorrentino on a previous draft of this paper.. Portions of this were presented at a seminar with Andrews Distributing Company, December, 2015, Dallas, TX.

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