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Knowing when to set learning versus performance goals

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INTRODUCTION

Convergent validity in the behavioral sciences exists when multiple theories developed independently, and empirical research conducted by multiple researchers yield similar, if not identical, results. The results have practical significance if they impact the behavior of individuals in the workplace.

Goal setting has convergent validity. The results of more than 1,000 studies conducted in a wide range of countries – including Australia, Canada, Germany, Japan, the Netherlands, the United Kingdom, and the United States – by multiple investigators provide evidence-based principles for how and how not to use goal setting. This article reviews divergent theories in the behavioral sciences that have converged on the validity of goal setting processes, the mechanisms that explain why these processes have a beneficial effect in work settings, ten evidence-based principles for setting goals and, most important, when to set a learning rather than a performance goal, and the pitfalls to be avoided in doing so.

THEORIES OF GOAL SETTING

The importance of setting goals to increase job performance and job satisfaction is stressed by five theories of motivation. Maslow's theory of motivation describes a hierarchical set of goals, including those for security, self-esteem and self-actualization, that individuals strive to attain.

Likert's system 4 theory emphasizes the necessity for goal setting in order for leaders to improve their organization's bottom-line measures. This theory also emphasizes the importance of employee participation in decision-making regarding the goals that are set and the ways to attain them. Finally, system 4 theory argues the necessity for a supportive, trusting relationship between a leader and subordinates in the pursuit of an organization's goals.

Frese and Zapf's action theory states that for work to become personally enhancing and motivating, four action steps must be taken. First, goals must be set. Second, a systematic search for information relevant to the goals must be undertaken. Third, a plan must be developed, based on that search, for attaining the goals. Finally, feedback must be obtained on the progress that is being made in attaining the goal, as greater effort may be required, more information may be needed, or the plan itself may need to be scrapped and a new one developed.

Bandura's social cognitive theory explains the role of goals as standards for self-evaluation. A high outcome expectancy is necessary for a goal to lead to action. Thus, a leader must ensure employees see the relationship between what they are doing and the outcome they can expect. A goal, even though it is crystal clear, will not energize people to pursue it if they have no idea as to how to go after it. If the goal is crystal clear, and outcome expectancies are high, an employee may still remain unmotivated if self-efficacy is low. Self-efficacy refers to task specific confidence. Self-efficacy is the conviction that "I can do this." Thus, this theory states that the keys to motivation are three-fold. First, set a goal. Second, make sure employees know what they need to do to attain it. Finally, make sure they have the confidence that they can do so.

The motivation theory that has garnered the most attention of organizational psychologists and human resource managers is Locke and Latham's goal setting theory. This is likely due to its emphasis on both job performance and job satisfaction. This theory states that a goal that is specific and high leads to higher performance than a general goal such as "to do your best" or specific easy ones. Vague goals (e.g., let's improve the quality of this product) allow people too much wiggle room to undeservedly pat themselves on the backs. Second, given the person has the ability and resources to perform the job, and the person is committed to attaining the goal, the higher the goal, the higher the

person's performance. Third, performance feedback and participation in decision-making only increase performance to the extent that they lead to the setting of and commitment to a specific high goal. Fourth, goal attainment leads to job satisfaction, which, in turn, leads to a high performance cycle through the subsequent setting of even higher goals that lead to even higher performance. Goals provide employees with a challenge and a sense of accomplishment as progress toward goal attainment is made. People like and enjoy that which they do well.

THE MECHANISMS UNDERLYING THE GOAL SETTING PRINCIPLES

Based on an organization's needs and values, overall goals should be identified. These should then be deployed as specific, high goals to departments or teams and the employees within them. A specific high goal influences an employee's behavior in four ways. First, a goal affects choice – it gives an employee focus. Individuals have multiple demands on their time. A goal specifies what is most important and hence directs attention to activities that are relevant to attaining the goal. Second, a goal affects effort. A difficult goal leads to more effort than an easy or vague goal. Third, a goal affects persistence. That is, the more difficult a goal, the greater the effort and persistence to attain it. Choice, effort and persistence are the cornerstones of motivation in the workplace. A fourth mechanism that explains the positive effects of goal setting on performance is primarily cognitive rather than motivational in nature. A goal leads to searching for and developing strategies to attain it. Employees typically draw on their repertoire of knowledge and experience from which to develop a suitable plan.

TEN EVIDENCE-BASED PRINCIPLES OF GOAL SETTING

More than 1,000 studies have been conducted on goal setting. These studies suggest 10 evidence-based practices for improving an employee's performance. First, if lack of ability is not an issue, focus on a specific performance outcome or target to attain (e.g., an increase in revenue or a decrease in costs or cycle time). Goal setting has been shown to improve performance outcomes as well job behaviors for a wide variety of tasks and jobs. For example, job performance from uneducated loggers to highly educated scientists has benefited from the setting of goals.

Second, make the goal specific. Specific goals provide the clarity that is so often lacking in the workplace. For example, a business unit can be assigned a specific goal of increasing market share by 22 percent for the next year or to reduce costs by 15 percent over the next quarter. An example of a specific behavioral goal for a human resources (HR) manager is: take into account the input of line managers on HR policies before the policies are implemented.

Third, ensure that the goal is difficult or challenging for the employee, yet is perceived as attainable. A leader must ensure that employees see the relationship between the behaviors required of them and goal attainment (i.e., high outcome expectancy). In addition, a leader must ensure that each employee has high self-efficacy (i.e., task specific

confidence) so that he or she can execute the behavior(s) necessary for goal attainment.

Fourth, consider the benefit of goals set through participation. Scientists and engineers who were allowed to participate in goal setting set much higher goals than their counterparts who were assigned goals by their manager. High goals lead to high performance. If the task is difficult, participation among knowledgeable employees increases the likelihood of them understanding what is required to perform effectively. This is because of the information exchange and planning that takes place during the discussion of attaining a high, challenging goal. The resulting increase in knowledge leads to the identification of effective task strategies on how to reach the goal, as well as self-efficacy that the strategies will be implemented effectively.

Fifth, if the goals are assigned, make certain that people understand the rationale underlying their importance. Assigned goals that include a rationale have been shown consistently to be as effective in raising performance as are goals that are set in a participative manner.

Sixth, provide ongoing performance feedback on goal progress. As noted earlier, the feedback may suggest that more effort, or a different strategy, is needed to reach the goal.

Seventh, if the task is likely to take a long time to complete, set sub-goals to maintain employees' focus, and to ward off procrastination for attaining the end goal. Sub-term goals are especially necessary when performing complex or dynamic tasks in a fast-changing environment. Failure to attain a sub-goal may suggest that a change in strategy is needed to attain the end goal, or even the need to change the end goal itself. Sub-goals have been shown to keep job seekers focused on the necessary steps during the job search process, rather than becoming overwhelmed by the complexity of the end goal of securing a job. The attainment of a challenging goal often occurs as a result of a series of small performance improvements over time, rather than one quantum leap. Sub-goals also help to solidify improvements in performance. The swimmer John Naber set a goal of winning the gold medal in the 100-meter race at the 1976 Olympics. Naber gave himself four years to achieve the goal. His sub-goals were to improve his time by one second per year. He also set sub-goals for each month. He subsequently attained his specific, high goal of winning the gold medal, and he even broke the world record during the Olympic race.

Eighth, actively look for and remove situational constraints to goal attainment, such as a lack of needed resources, or support from key decision makers. The lack of tangible support from a leader typically leads to employee frustration. It is hardly fair to expect employees to achieve outstanding results in the absence of resources or tools required to do so, and in the absence of support from a boss to pursue the goal.

Ninth, monitor activities that support or undermine the attainment of goals. Leaders should not ignore ineffective employee behavior. Doing so sends the signal that they either do not care, or that dysfunctional behavior is acceptable. For example, in the aftermath of the 2003 Columbia Space Shuttle crash, the Columbia Accident Investigation Board reported that the engineers perceived the climate at NASA as one that discouraged divergent viewpoints. The mission manager had created an environment in which the engineers

self-censored themselves. She was unaware of the impact of her behavior on others, and her superiors had not coached her on the dysfunctional behavior. The goal of a safe mission was therefore inadvertently undermined.

Tenth, when people lack the knowledge or skills to perform a task effectively, when lack of ability is an issue, set a specific difficult learning rather than a performance goal. A learning goal focuses attention on acquiring the knowledge and skill necessary to attain a desired outcome rather than on the outcome itself. A specific high learning goal focuses attention on the discovery of new processes, procedures, or systems to attain a specific result. For example, someone who is a novice golfer should focus on mastering putting before focusing on attaining a specific score. Similarly, teachers should learn the behavioral strategies of fostering students' engagement in the subject matter prior to focusing them on achieving high test scores.

THE RELATIVE ADVANTAGES OF LEARNING VERSUS PERFORMANCE GOALS

Goals reflect the values of the people who set them. The values that led to the downfall of organizations such as Enron and Lehman Brothers have been well documented. To paraphrase Shakespeare, the fault lies not in the goals, but in ourselves – we who set the goals. Any behavioral science principle, including goal setting, is subject to willful misuse. Thus this section focuses only on evidence-based principles for avoiding what may be well intentioned, yet accidental pitfalls of setting goals.

U.S. Air Force trainees were put through a highly complex Air Traffic Control exercise. Contrary to goal setting theory, a vague goal – urging people to do their best – led to higher performance than setting a specific high goal. This is because the Air Force cadets had not been trained in ways to perform this task successfully. They did not have the knowledge or skill to master this task.

Other studies too have shown that urging people to do their best on a task that is very complex for them results in better performance than giving them a specific high performance target to attain. People with low ability who have a specific high performance goal often haphazardly switch strategies, leading to a decrease in their performance. In contrast, those who have a vague “do your best” goal search systematically for effective task strategies, which in turn helps their performance. They take the time to learn the best way of performing the task before they choose a specific challenging target.

Nobody expects a novice golfer to win a golf game the first, second or third time. Effective leaders do not, or should not, expect their employees to be “on par” with every new challenge. Leaders should encourage their employees to spend time in a learning mode before setting a specific high performance goal. Our experience is that in far too many situations people fail to take the time to learn the appropriate strategies or behaviors that are a prerequisite for “reaching the top.” When lack of ability is an issue, people need to think about the “how” rather than the “what” in terms of accomplishments. If this is not done, and if supervisors are given performance targets that they believe are excessively high, they are prone to abusing their subordinates

in their frustration at the likelihood of failing to attain the targets. The solution is to set specific high learning rather than performance goals where the emphasis is on the pursuit of ideas and the development of effective processes.

The primary distinction between a performance and a learning goal is the framing of the instructions. The respective instructions focus attention on two different domains, namely, motivation versus knowledge and skills. A performance goal frames the instructions so that an employee's focus is on attaining a specific outcome (e.g., attain \$2 million in sales next quarter, or decrease costs for a particular product line by 10 percent next month). A performance goal cues an employee to use strategies or performance routines that the employee has already learned, and have been shown to be effective. Only when people already have the requisite ability does setting a specific high performance goal result in significantly higher performance than a high learning goal or urging people to do their best.

In contrast, a learning goal frames instructions in terms of knowledge or skill acquisition (e.g., discover three effective strategies to increase sales, or find five process improvements for reducing costs). A learning goal draws attention away from the end result. The focus is on the discovery of effective task processes. Learning goals help an employee progress to the point where performance goals become beneficial for increasing performance effectiveness. Only after an employee has acquired the knowledge and skills necessary to effectively perform the task should a specific challenging performance goal be set.

In summary, the focus of a learning goal is to increase an employee's knowledge and skills; the focus of a performance goal is to increase the person's motivation to use the acquired knowledge and skills. When knowledge and skills are lacking, urging people to do their best results in higher performance than setting a specific high performance goal. But, performance is even higher when a specific high learning goal is set. This is because the setting of a learning goal focuses individuals on the discovery of procedures, processes, or systems necessary to master tasks that are complex for them.

For example, we studied the effect of learning versus performance goals on a complex simulation of the telecommunications industry. Effective performance on the simulation depended on discovering and implementing appropriate strategies to increase market share. The market share achieved by those with a learning goal was almost twice as high as those with a specific high performance goal. This is because individuals who had a learning goal took the time necessary to analyze task-relevant information. This in turn increased their self-efficacy so that they were capable of mastering the simulation. The increase in task-specific confidence was the result of the discovery of the appropriate strategies for task mastery. Hence, not surprisingly, those with a learning goal also had higher commitment to their goal than did those with a performance goal.

Learning goals are especially appropriate in the current economic environment. The rising cost of jet fuel has had a significant effect on the profit of airlines. For example, fuel is among the largest expenses in the budget. Financial disaster strikes if the cost of jet fuel cannot be brought under control. Consequently, American Airlines committed itself to the “Fuel Smart” program. An interdepartmental team was given the learning goal to find specific ways to achieve fuel

conservation. The team developed and prioritized ideas that potentially had the greatest financial impact as well as the support of the front-line employees who were tasked with implementing specific ideas. First, lighter catering carts were used. Second and third, business magazines and ovens were taken off the planes, so that catering weight would be significantly reduced. In 2008 alone, the Fuel Smart program saved the airline over \$ 300 million. Similarly, employees of WestJet Airlines were given a learning goal to identify specific ways to reduce fuel costs. The ground crew discovered the benefit of installing an external gauge to read the water level of the potable water tank that supplies the aircraft with water. In the past, crews had filled the tank regardless of an airplane's destination. This weight unnecessarily increased fuel costs. An external sight gauge allowed the crew to determine how much potable water was used on each specific flight. This led to significant fuel savings and reduced fuel burn and emissions in the millions of dollars.

In sum, learning goals are effective for increasing the acquisition of knowledge and subsequent performance because they:

1. Make explicit the importance of learning first, and attaining a specific performance target second.
2. Focus attention on formulating a successful strategy, process, or system.
3. Require seeking feedback to determine which task strategies are effective and under which conditions.
4. Involve searching for alternative strategies if prior ones are not effective.
5. Help individuals avoid mindlessly changing strategies, or engaging in a mad scramble for attaining a specific performance outcome.

In conclusion, the research evidence does not suggest abandoning specific high performance goals. Managers, however, should allow their employees to spend time in a learning mode before introducing specific, challenging performance goals. Learning goals help overcome obstacles and significant setbacks that are a natural part of skill acquisition. Learning goals focus on finding appropriate approaches to attaining high performance. To return to the golf metaphor, individuals must learn when to use each club and iron before focusing on their score.

TURBULENT ECONOMIC ENVIRONMENTS

Learning goals are especially effective in turbulent environments where employee adaptation is a necessity for organizational survival. Consistent with Likert's systems 4 theory, employees' trust in their manager, in conjunction with specific learning goals, leads to a greater increase in a department's performance than is the case when trust in their manager is low. Trust mitigates employee fears that they will be penalized if a learning goal is not attained. Trust facilitates taking risks; trust facilitates systematic experimentation.

Adapting to a changing environment almost always involves setbacks, which means that employees receive negative feedback. Individuals who are assigned learning goals respond in a different manner to this feedback than those who are assigned specific high performance goals. A performance goal can trigger concerns about the consequences of failure. In a

turbulent environment, employees may become so apprehensive about not making a positive impression on others that they become highly upset when they receive negative feedback. This in turn hurts their performance. Worrying distracts individuals from learning the task and hence performing it well. "Mind-wandering" due to worry while performing a task typically results in many errors. A learning goal, on the other hand, focuses attention on exploration. Negative feedback is seen by employees as part of the learning process, and hence to be welcomed. Consequently, employees who have a learning goal experience minimum tension following negative feedback. This is because a learning goal minimizes feelings of helplessness that can result from setbacks that are typically inherent in the learning process. Therefore, when the environment is constantly changing, when answers to emerging problems are unknown, when proven strategies are suddenly of limited, if any, use, and when there is a need for continuous learning because of frequent environmental changes, specific high learning goals can be invaluable for mastering a task.

EXAMPLES OF PERFORMANCE AND LEARNING GOALS IN ORGANIZATIONS

J.D. Irving Ltd., a Canadian company, offers services and products in oil and gas, retail and distribution, forestry, shipbuilding, and transportation. Employees are assigned learning goals before they are given performance goals. The goals are developed using a balanced score card and performance indicator dashboards. An action plan and a competency-based performance planning and review process are used to determine employee developmental plans for attaining their respective goals. Each development plan begins with a learning goal that must be attained in order to later pursue a subsequent performance goal. Examples include the ability to lead a meeting, lead a team through a process for improvement, carry out Lean Six Sigma, and coach employees. The learning goals are attained using a three-step process: teaching, application, and a behavioral expectation for application. The Lean Six Sigma competency, for example, starts with a learning goal. The employee attends classes and completes a project over a 4-month period, with a coach. The focus here is on learning the requisite material. Attainment of the learning goal is assessed by a test of an employee's knowledge, and a project presentation to verify whether the learning goals were attained.

Maple Leaf Foods, a food processing company, is a strong believer in the benefits of setting specific high learning goals in order to turn their high-potentials into effective leaders. Examples include: giving functional specialists P & L (profit and loss) responsibilities, putting high potentials in charge of a project to deal with a specific crisis such as a turnaround or a start-up situation, and job shadowing of the CEO (chief executive officer) for a significant period of time. Learning occurs through actively seeking candid feedback from peers and superiors regarding goal progress. This approach enables employees to reflect on and review their actions regarding a specific learning goal. Maple Leaf Foods' learning goals guide future steps to improve job performance. Employees are required to stay out of a "performance mode," in order to spend the time necessary to be in a "learning mode."

At Goldman Sachs, leaders are developed through assigned learning goals that encourage people to step outside their “comfort zones.” A sales manager might be asked to lead a task force to invent a new process for product development. Consistent with system 4 theory, a supportive infrastructure is provided for goal attainment through senior-management sponsorship of the program.

Work-out, at General Electric, was established by Jack Welch to create a safe environment for employees to question and challenge the status quo, and to take the initiative to propose new ways of doing things. The program resulted in significant productivity increases. It turned upper managers into supportive facilitators of employee-generated initiatives.

Learning goals not only enhance employee performance through task mastery, they typically create a culture that facilitates continuous problem solving as well as knowledge acquisition. When Andy Grove was CEO at Intel Corporation, he was obsessed with learning everything about the changing business environment. In Grove’s own words, “I attribute Intel’s ability to sustain success to being constantly on the alert for threats, either technological or competitive in nature.” Similarly, Sam Walton, former CEO of Wal-Mart Stores, continued to refine his business strategies and discover ways that he could further improve his already successful stores. He never stopped learning from competitors, customers, and his own employees. Walton believed that there was at least one good idea he could learn, even from his worst competitor. A senior executive of a bank recently commented that he gets paid to be “paranoid” and that he needs to learn, everyday, about the strategic choices of competing banks, the political and economic forces in the business environment, new products and services, and so forth. This guardian attitude, which is shared by the other executives, is seen as one reason why the bank did not get involved with the high-risk structured products business that created havoc in the financial sector. The executive team was not able to get a solid understanding of how these products were put together, even after they spent significant time in a learning mode. The learning culture that is characteristic of this bank prevented financial distress.

KEY LESSONS

When actions that once repeatedly led to success no longer do so, setting a specific high performance goal can lead to levels of unproductive fear caused by worry over potential losses in productivity. Such fear can be exacerbated by worries over basic needs for survival due to job loss. This is because the global economic slowdown and the simultaneous credit crunch unsettled many employees’ outcome expectancies; namely, they are no longer able to see the relationship between what they are doing and the positive outcomes they can expect. It also weakened their self-efficacy that “yes we can” – “this goal can be attained; all we have to do is ...” to “no we can’t.”

In a turbulent economic era, when the actions that once fostered personal effectiveness don’t any more, even leaders

with previously strong track records can become rigid and defensive, cease productive reflection, and abuse their subordinates out of frustration for lack of goal attainment. The solution is not to abandon goal setting; rather, it is to change the type of goal that is set. The solution is to set specific challenging learning rather than performance goals, so that the emphasis is on the discovery rather than the production process. Continuing to set specific high performance goals in a turbulent environment where what was true in the past is no longer true today is likely to lead to cognitive narrowing, clinging to the old ways of getting things done. Learning goals allow leaders to be supportive in the discovery process by encouraging their employees to openly question previously held “truths” regarding pathways to profits. Learning goals create a psychological safety zone for generating untried, yet potentially promising, ideas for taking constructive action. Setting learning goals during shrinking time horizons helps people feel that they are back in control, that they are going to make progress in the right direction as a result of being encouraged to reassess strategies, change marketing and sales approaches, and to eliminate activities that are no longer effective.

Time horizons that are constantly shrinking often force people to scramble, because the benefit of intuition based on past successes falls. When a high performance goal is set, careful analysis typically gives way to a mad scramble. A learning goal allows employees to discard assumptions behind their past successes and to create new ones to stimulate success. De-staffing, de-layering, and restructuring bureaucratic systems to increase an organization’s effectiveness are more likely to emanate from a learning than a performance goal. A learning goal places the emphasis on how a team or organization works, as opposed to what the team attains in terms of cost-related outcomes. The focus is on specific ways of developing and diffusing knowledge effectively.

Specific high performance goals are the natural corollary of specific learning goals. They are set only when knowledge acquisition is not an issue. Both specific learning and performance goals must be set in a supportive, trusting climate for risk taking and innovation to occur.

In summary, innovation, the development of novel and useful ideas, is the result of effort and persistence in using one’s head to attain a specific learning goal. A learning goal narrows the focus to searching and developing ideas to resolve an issue in a specific domain. Learning goals involve idea generation, the critical evaluation of ideas and the implementation of one or more ideas. Learning goals facilitate a cycle of idea generation that leads to action that creates new solutions from which new ideas are generated. When sheer effort and persistence is all that is required, a high performance goal should be set. When extant processes, systems and “know how” are lacking, a high learning goal should be set.



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