The GAP-ACT Model

of Human Behavior and Performance

Fred Nickols

6/19/2016

DISTANCE CONSULTING LLC

This paper presents The GAP-ACT Model of Human Behavior and Performance. It is the first version of what is also known as The Target Model. The model is based on Perceptual Control Theory (PCT) as developed and articulated by William T. Powers. PCT asserts that we act to control our perceptions of selected aspects of the world about us. We are, then, "living control systems."

Overview

This paper presents a model of human behavior and performance called the GAP-ACT model. It is useful in thinking about, understanding and improving human performance in workplace settings.

The GAP-ACT model is based on William T. Powers' (1973, 2005) theory that behavior is the means whereby we control our perceptions. This theory, known as Perceptual Control Theory (PCT), is a closed-loop view of behavior that is consistent with the control theory of the engineering sciences. Indeed, Powers (1989) calls human beings "living control systems." The model's framework is useful in integrating much of what we know about what works with respect to managing and improving other people's performance in the workplace. Powers' book, *Making Sense of Behavior* (1998), does an excellent job of setting forth PCT in an easy to read, understandable way and I will not attempt to duplicate that eloquent explanation here.

My aim in this paper is to set forth the GAP-ACT model in a way that facilitates its use in examining and intervening in human performance issues in the workplace. In this sense, the model serves as a guide to professional practice for those interested in establishing and maintaining particular kinds and specific levels of performance in workplace settings. It provides a theoretical framework on which to hang empirical findings. Karl Weick (1995) has made clear the importance of sense-making in organizations and the value of the model presented here is perhaps greater to practitioners in helping them make sense out of what they already know than if it simply gave rise to a few new techniques.

But first, let's address the underlying construct: human performance.

Human Performance: What is it?

When we talk about human performance we are talking about two things: (1) people's behavior or actions and (2) the effects or outcomes of those actions (Nickols, 1977). Indeed, this distinction lies at the heart of the "official" definition of performance offered by Stolovitch and Keeps (1999), editors of *The Handbook of Human Performance Technology*, when they set out to define the field in Chapter One of the handbook.

The effects of our actions are usually felt on other people, on information, on things and on "systems" (e.g., structured arrangements such as work flows, processes, methods, etc). Performance, from a behavior or action perspective, might involve leading a discussion, writing a report or a proposal, building a cabinet, redesigning a procedure and so on. The effects sought from these actions might include developing a shared understanding of an issue; communicating the results and recommendations of an analysis or of winning a new piece of business; expanding available storage space or realizing cost reductions through work simplification.

Performance in the workplace has many dimensions. Regarding a customer service representative (CSR), for example, we are as interested in the CSR's overall impact on the customer as we are in the extent to which the CSR efficiently handles the customer's order, inquiry or complaint. We expect that most employees will comply with company policies and procedures; however, we also expect that many people will not just "do their jobs" and "behave themselves" but that they will also contribute above and beyond these basic expectations (e.g., by devising improvements to the work processes in which their own work is embedded). We expect to see certain patterns in behavior that are commonly summed up in labels such as "punctual," "reliable," "steady," "cooperative," "loyal" and "courteous." And we expect to see certain patterned behaviors that go by other names, namely, "skills" and "competencies" (e.g., proficiency displayed during the course of typing memos, coding programs, writing reports, leading meetings, solving problems and so on).

Human performance, then, is a rich, multi-faceted construct that encompasses behavior *and* its effects. Let us now turn our attention to the GAP-ACT model. First, we will examine the GAP portion of the model and then the ACT portion.

The GAP-ACT Model

The definition of a problem as a gap or discrepancy between actual and desired conditions is widespread and longstanding. In Figure 1 desired conditions are represented by G (standing for Goal). Perceived actual or current conditions are represented by P (standing for Perception). The black dot where G and P come together represents a comparison of the two. If this comparison yields a discrepancy between our perceptions and our goals, we act so as to reduce or eliminate any such gap. Actions are represented by the letter A.

G

A

P
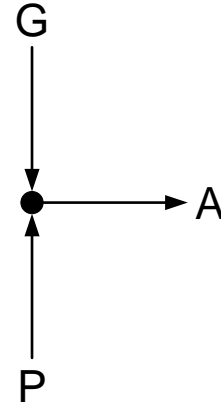
Figure 1

The GAP Model

Those targeted variables we seek to affect or control and in respect to which we set goals are represented in Figure 2 by the letter T (standing for Target). Our actions, as in the previous model, are represented by A. Rarely is T under our complete control. There are other actors and factors at work, circumstances that disturb, hinder, impede, offset and, on occasion, overwhelm us, frustrating our best efforts to influence T. These circumstances are represented in Figure 2 by the letter C.

C

A ⟶ T
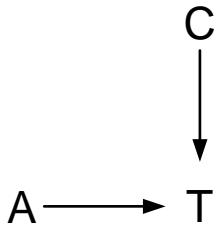
Figure 2

The ACT Model

Combining the two models just developed yields a third model shown in Figure 3. This model couples the two previous models via the lines entering and leaving Actions (A) and the dotted line indicating feedback (marked by a lower-case *f*). Feedback is in the form of Perceptions (P) of the Target (T). The model in Figure 3 uses a lower-case *d* on the line leading to from the intersection of G and P to A. This indicates that action arises from a discrepancy between P and G. The model also uses a lower-case *i* on the line leading from A to the intersection with C. This indicates that actions taken to affect T in ways that reduce or eliminate any discrepancy between P and G are interventions, that is, they are actions taken with an outcome or result in mind.

People as Living Control Systems

The GAP-ACT model in Figure 3 depicts the main factors in a view of human beings as living control systems. This model encapsulates Powers' theory which says people act in ways that keep their perceptions aligned with their goals. Stated more simply, we act in ways that get us what we want.

To recap: As a living control system I have or hold goals that define reference specifications or desired states for certain variables around or related to me. I also have perceptions of these variables. My perceptions define for me what appears to be the case (i.e., current or actual conditions). If I am bent on controlling some aspect or variable in the situation (i.e., if I really intend for some variable to be in a certain state) and if I perceive that it is not, I take action so as to bring my perception of this variable into alignment with my goal or reference specification for it. In short, I act to keep my perceptions aligned with my goals.
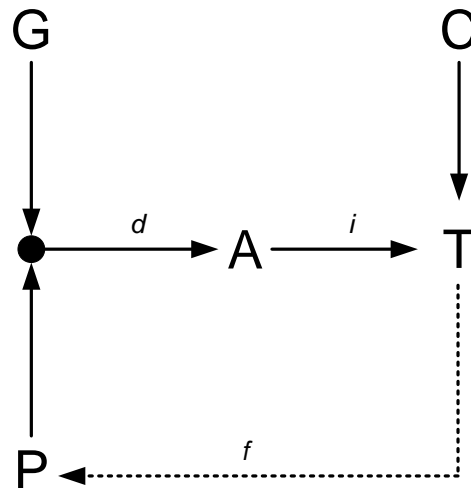
G   C

d   *i*

A ⟶ T

P ⟵ *f*

Figure 2 - The GAP-ACT Model

My actions are mediated by other factors; for example, my physical surroundings and other people. My control is far from perfect; it is ever subject to disturbances from complicating and confounding conditions.

Now, let's move away from me and talk about us. If I am a living control system, so are you. If I act in ways that serve to keep my perceptions aligned with my goals, so do you. If your actions affect my actions, mine might affect yours. Your actions might affect mine in ways that buttress my actions or in ways that negate or diminish the effectiveness of my actions; ditto for mine in relation to yours. In short, your actions might disturb my efforts to control my perceptions and my actions might disturb your efforts to control yours. We find ourselves in conflict. And that brings us to the task of management.

The Task of Management

The fundamental task of management is to concentrate and channel organizational energy along productive lines. This entails setting goals and objectives, allocating resources, establishing priorities, monitoring accomplishments and so on. Managers are typically responsible for more work than they can do alone. The task of management extends to focusing and directing the activities of other people, of managing other people's performance. In the course of influencing other people's behavior and its effects on targeted conditions, managers can find themselves in conflict with the people who report to them. The balance of this paper touches on ways and means of managerially influencing behavior and performance in ways that are least likely to create disturbances to people's efforts to control their perceptions and to a manager's efforts to influence performance. These "avenues of influence" are shown in Figure 4.
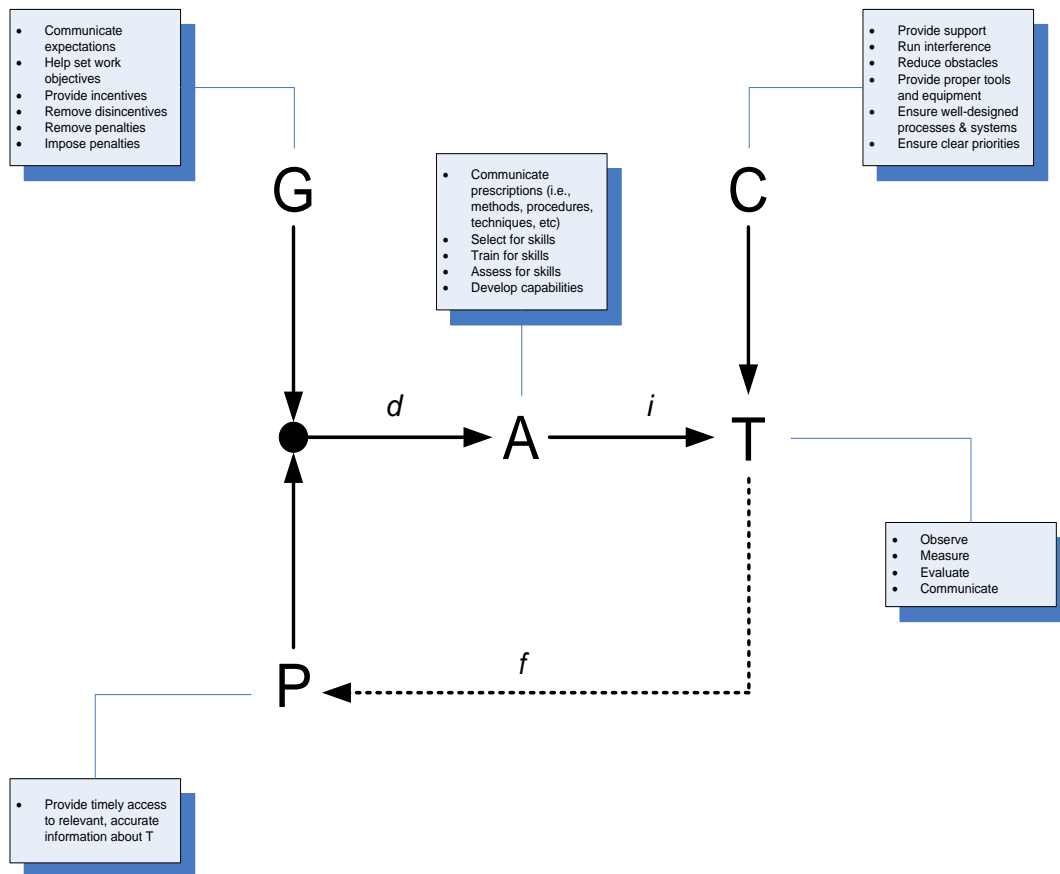

Figure 4 - Avenues of Influence

Influencing Someone Else's Performance

Short of coercion, a manager can't really control someone else's performance (i.e., the other person's behavior and the effects of that behavior); only the person in question can do that and then only with limits posed by those mediating factors we are here calling "disturbances." If management wishes to influence the performance of employees, it must take steps to influence the elements of the GAP-ACT model. The basic options are depicted in the shadowed boxes in Figure 4. The best a manager can do is to ensure that the conditions under which a given performance is to be achieved are as consistent with and supportive of the desired performance as they can be.

Influencing Goals. Management has several options for influencing the goals set by the performer. One option is to communicate management's expectations. However, simply communicating expectations presupposes management has a sufficiently detailed grasp of the results expected from the performer to both formulate and communicate a clear set of expectations. Often it is the case that many people, especially the so-called knowledge workers, set their own goals. Thus, another option available to management is to work with the performer in establishing an appropriate set of goals, perhaps in some kind of coaching or mentoring arrangement. Management can also take steps to remove any obstacles or barriers that might dissuade the performer from setting goals that are consistent with management's expectations (e.g., ensuring that the desired goals have appropriate positive consequences and/or do not lead to inappropriate negative consequences).

Influencing Perceptions. It is extremely important for the performer to have accurate, relevant, timely information about the observed or measured state of T. Without such information, the feedback loop is essentially open and any actions taken by the performer are at best informed guesses and at worst uninformed blundering. Management can take steps to ensure that the targeted variable (T) is, to the extent possible, observed, measured and evaluated and that this information is provided to the performer in a timely fashion.

Influencing Actions. Adults in the workplace already have well-developed repertoires. They are capable of varying their actions so as to produce a given result under a wide range of circumstances. That said, a lack of required knowledge and/or skill can prevent performing as desired. In terms of influencing a performer's actions, there are two basic avenues open to management: (1) those focusing on the performer and (2) those focusing on the effects of the performer's actions. Training and development are two performer-focused options. So are other options such as recruiting and hiring people who possess the necessary knowledge and skill. A performer's actions are purposeful, that is, they are undertaken with an outcome or result in mind. Often, the result sought (i.e., the goal state for T) is far removed from the place where the performer's actions produce direct and immediate effects. There is, then, some kind of structure that links the direct and immediate effects of a performer's actions with the results sought elsewhere. Here, management can have a great deal of influence over performance by mapping and otherwise making clear the linkages between a performer's immediate actions and the ultimate results wanted from that performer.

Influencing Circumstances. As the GAP-ACT model shows, the targeted variable (T) is affected not just by the performer's actions but also by other circumstances (C). A good performer who is caught up in a poorly designed process might be overwhelmed by the flaws in such a process and be unable to produce the desired results. Missing tools, faulty equipment, shoddy inputs, conflicting priorities and demands can all interfere with the performer's ability to produce the desired results. Management can do a great deal in this area (e.g., provide support, run interferences, reduce or eliminate obstacles, provide the proper tools and ensure well-designed work processes and procedures to name some of the more obvious).

Closing Comments

In the last analysis, the performer is, as Powers has said, "a living control system." The only goals (G) that matter are those the performer holds. The only perceptions (P) of a targeted variable (T) that matter are those known to the performer. The performer's actions (A) always serve to keep the performer's per-

ceptions of T matching the goal for that targeted variable. There are limits on the extent to which a performer can adjust, adapt and otherwise offset the effects of complicating and confounding conditions (C). Management's role, then, is (or should be) one of adopting a strategy of enabling and facilitating desired performance instead of simply trying to demand or exact it.

We all manage our own behavior, our own performance, and each of us must take responsibility for that. Managers, however, are responsible for more work and results than they can accomplish on their own; they are responsible for the performance of others.

Managers can benefit from viewing the people who work for them as living control systems. As such, people act to counter perceived disturbances to those factors they are attempting to control. Consequently, managers who seek to influence the performance of employees who report to them and who do so in ways that disturb the employees' control will encounter conflict between their efforts to influence employee behavior and the employees' control of variables important to them. This is particularly true if managers continually seek to control both the ends employees are expected to achieve and the means used to achieve them because the primary means of achieving those ends is the employee's behavior.

Managers have an obligation to do what they can to encourage, support and facilitate the performance of the people for whose performance they are accountable but, if they wish to succeed, they must find ways that do not rely on heavy-handed coercion or micro-management because resorting to these practices leads inevitably to conflict between the manager and the employee — a contest for control of the employee's behavior — and that is a contest the employee will always win. Fortunately, much of management practice is consistent with a view of people as living control systems.

References

1. Nickols, F. W. (1977), "Concerning Performance and Performance Standards: An Opinion." *NSPI Journal* 16:1, 14-17
2. Powers, W. T. (1973), *Behavior: The Control of Perception*. Aldine de Gruyter: New York.
3. _____ (1989), *Living Control Systems: Selected Papers of William T. Powers*. Control Systems Group: Gravel Switch, KY.
4. _____ (1998), *Making Sense of Behavior: The Meaning of Control*. Benchmark Publications: New Canaan, CT.
5. _____ (2005), *Behavior: The Control of Perception (2nd Edition)*. Benchmark Publications: New Canaan, CT.
6. Stolovitch, H. D. and E. J. Keeps (1999), "What Is Human Performance Technology?" Chapter One (pp. 3-23) in *The Handbook of Human Performance Technology*, Stolovitch and Keeps, Editors. Jossey-Bass/Pfeiffer: San Francisco.
7. Weick, Karl E. (1995), *Sensemaking in Organizations*. Sage: Thousand Oaks

Contact the Author

Fred Nickols can be reached by e-mail at fred@nickols.us. Many other articles of his can be found by going to www.nickols.us and clicking on the link to articles or by going to his articles web site at www.skullworks.com.