Helping People Hit their Performance Targets

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This paper presents The Target Model of Human Behavior and Performance. The model is based on Perceptual Control Theory. An example of its application is included. This article appeared in the September 2010 issue of PI Journal.

A Model for Helping People Hit their Performance Targets

Let's assume you're a manager (or perhaps a consultant) who is charged with or interested in helping people hit their performance targets. To do this you need the right tools. One such tool is a model of human behavior and performance that fits all situations. This paper focuses on one model of that kind: *The Target Model of Human Behavior and Performance*. This paper is organized into two sections: Section 1 presents the model and Section 2 illustrates its application.

Section 1: The Target Model of Human Behavior and Performance

The Target Model of Human Behavior and Performance is shown in Figure 1 below.

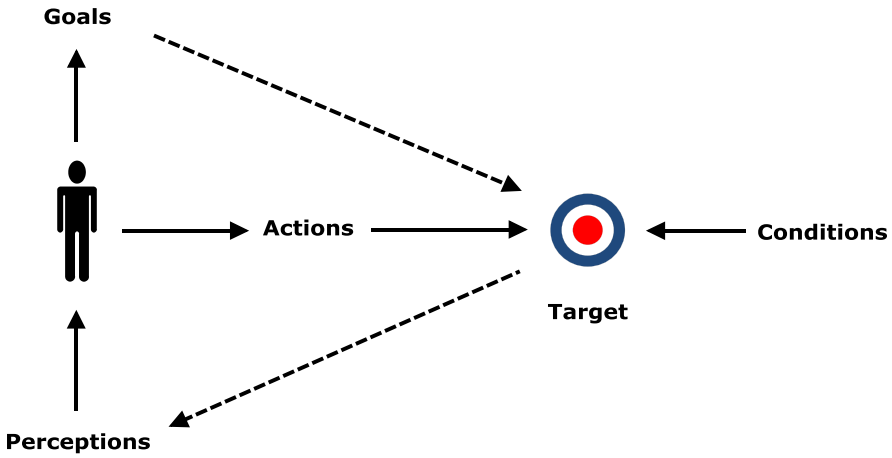

Figure 1 – The Target Model of Human Behavior & Performance

Some basic points to be drawn from the model are:

- Performance always targets some variable as represented by the bulls-eye in Figure 1. Some commonly targeted variables in the workplace include sales, error rates, project completion dates and meeting your budget. A given performance can involve many targeted variables, not just one.
- We compare what we see (the current state of the target variable) with what we want (our desired state for the target) and, if a difference exists, we act so as to align what we see with what we want. Gaps drive action. If actual expenses are tracking budgeted expenses, no corrective action is required. If actual expenses and budgeted expenses differ unacceptably (one way or the other) we'll probably do something about it.

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- Targeted variables are often subject to other influences but, unless those other influences are overwhelming, our actions compensate for their effects. If corporate allocates an unforeseen expense via overhead charges, we all scramble to find ways of getting our budget back on track.

To further illustrate the model in action, consider an everyday task facing millions of people: Driving to work.

On my way to work I am controlling several target variables; the position of my car in relation to its lane, its position relative to other cars, its speed in relation to the speed limit (and perhaps in relation to traffic flow), and my estimated time of arrival in relation to the overall target of being at work on time. I monitor my position and speed and I steer, brake, accelerate and decelerate accordingly. Other influences might include gusty winds that move my car sideways, heavy traffic that slows me down, other drivers that cut me off, potholes that I swerve to avoid, and even road construction that might force me to take an alternate route. My steering, braking, accelerating, and decelerating compensates for these other influences without a lot of conscious thought on my part. In all of this activity there are (a) target variables, (b) desired states for those variables, (c) observed current states, (d) actions that keep what I see aligned with what I want to be the case, and (e) other influences that I accommodate and compensate for (see the table below). The same is true of the tasks I encounter once I arrive at work.

The table below summarizes the driving example. The one below it indicates some of the elements in the meeting budget example. Similar tables can be prepared for just about any performance.

Model Components	Illustrative Examples
Target Variable	My location
Desired State	At work, on time
Current State	At home, running late
Actions	Getting dressed, getting in the car, driving, parking
Other Influences	Road, weather and traffic conditions

Model Components	Illustrative Examples
Target Variable	Actual expenses
Desired State	Aligned with budget (+ or – 5 percent)
Current State	Actual exceeds budget by 15 percent)
Actions	Reining in expenditures (e.g., cancelling projects); obtaining upward adjustments to the budget; laying off staff
Other Influences	Increased charges from suppliers; unplanned allocations from corporate; sales don't materialize

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Next we'll look at an important operational problem in a large testing company and in Section 2 we'll look at how the Target Model was instrumental in solving it.

The Reject Rate Problem

A colleague at a testing company asked me to take a look at one of the registration processing operations in his division. His starting statement of the problem was simple enough: "The reject rate is too high." He didn't know exactly how high it was and, when asked how low he wanted the reject rate to go, he said, "As low as you can get it." I agreed to take a look.

I had a general idea as to the nature of the operation in question and a brief discussion with the operation supervisor clarified matters and yielded a flowchart similar to the one shown in Figure 2 below.

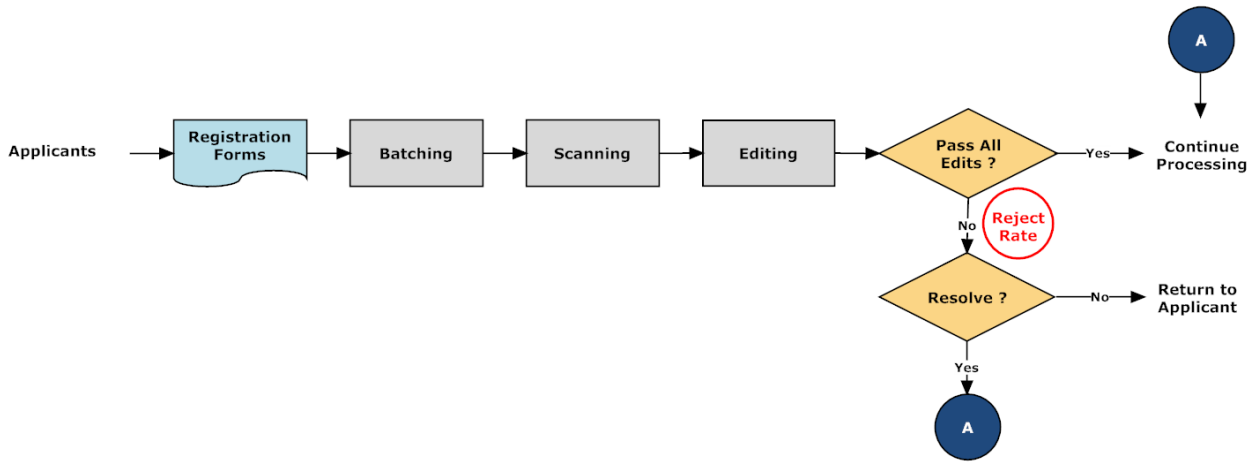

Figure 2 – Registration Processing Operation

Applicants wishing to take a certain professional certification examination had to first register to take the test. They filled out and submitted a registration form and, if all went well, they later received a seat assignment at a designated test center. As the registration forms came in they were batched, scanned and the scanned data were subjected to computer-based edits. If the forms passed these edits, they continued on to the next stage of the process. If the forms failed these edits, they were rejected. The reject rate was the result of dividing the number of rejected forms by the total number of forms being processed. At this point, two possibilities existed: (1) any problems with the form could be resolved at the testing company, in which case processing clerks made the necessary corrections and the now acceptable registration form was re-entered into the process or (2) whatever problems existed could not be resolved and the form was returned to the applicant.

It seemed clear enough that there was nothing wrong with the processing operation itself; instead, its inputs (the completed registration forms) were faulty. But just how faulty were they? What were the numbers behind my colleague's statement that the reject rate was "too high"? How high was it? The supervisor guessed that about half were being rejected. He did not have any figures at hand but data

were available so a "quick and dirty" study was conducted. As it turns out, the supervisor's guess was close.

Of the registration forms received, only about one-third passed all the computer-based edits. The reject rate regularly varied between 60 to 70 percent. About half of these rejects (30-35%) owed to simple errors of omission – missing information. The forms were incomplete. The other half of the rejects owed to errors in the codes identifying the places where the applicants had received their professional training, or where they wanted to take the test, or where they were seeking employment.

The pie chart in Figure 3 makes clear the extent and nature of the problem in a way words cannot. Clearly, my colleague was justified in being concerned about the reject rate. Fully two-thirds of the inputs were rejected, some of which were resolved, many of which were returned to the applicants, and all of which constituted unnecessary and expensive rework. Making matters worse, the returned registration forms created hard feelings on the part of the applicants who had submitted them and, in turn, raised concerns on the part of my colleague's client, the licensing and certification board that owned the testing program. This was a serious operational problem with financial costs and client relationship implications.

In the next part of this paper we'll look at how the reject rate problem was rather easily and quickly solved as a result of applying the Target Model presented earlier.

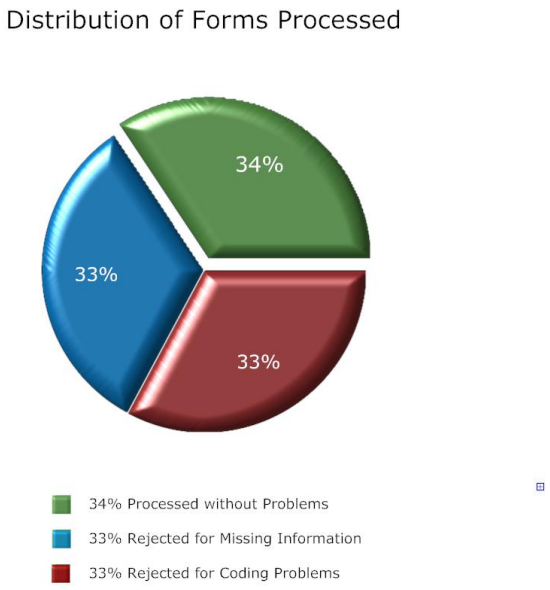

Figure 3 – Distribution of Forms Processed

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Section 2: Applying the Target Model of Human Performance

The solution to the problem presented earlier obviously involved getting the applicants to do a better job of completing the registration form. In this section we will see how that goal was accomplished.

After my initial investigation of the reject rate problem I was able to prepare a summary table like the one shown below.

Target Model Components	Illustrative Examples
Target Variable	Registration Form
Desired State	Clean and complete
Current State	Riddled with errors
Actions	Reduce/eliminate the errors
Other Influences	Unknown

What I wanted to know after my initial investigation was why the applicants weren't doing a good job of filling out the form and whether or not there were any other influences affecting their performance. So I imagined an idealized version of the Target model that reflected what the applicants should have been doing (see Figure 4 below).

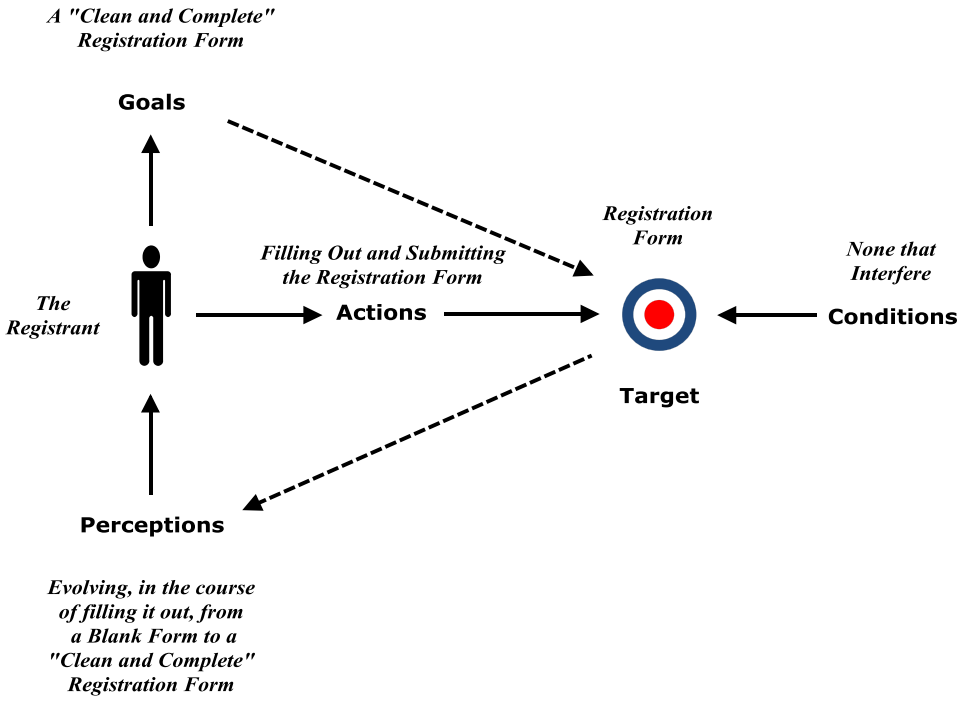

Figure 4 – An Idealized Performance Target Model

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Under ideal conditions, the applicants would want to produce a "clean and complete" registration form. That would be their goal, their desired state for the registration form. Moreover, they would be able to tell if the registration form they were filling out was "clean and complete." Thus, they could monitor the evolving state of the registration form as they filled it out and they would be able to tell when it was "clean and complete." At that point, they could submit it.

Armed with the idealized model in Figure 4, I made some assumptions about the reasons the applicants were producing error-riddled forms instead of "clean and complete" forms. My assumed reasons led to a short list of questions (see the table below).

Assumed Reasons	Related Questions
The applicants are making so many careless errors because they do not understand how important the registration form is to them. In short, they don't care. A "clean and complete registration form" is not a goal of theirs.	Do the applicants understand that an incorrect or incomplete registration form will likely delay their taking the test and, in turn, delay their certification, licensing and employment as well as any income from that employment?
The forms are riddled with errors because the applicants can't judge for themselves whether or not they've filled out the form properly.	How would the applicants know whether or not they had filled out the form correctly?
There are so many coding errors because there is some kind of special problem associated with the codes.	Where and how do the applicants obtain the codes they are supposed to enter on the form?

To make a long story short, it turns out the applicants didn't have a clue about the importance to them of making certain the registration form was filled out properly. Nowhere in the instructions was it pointed out to them that a rejected form meant delays in taking the test, getting certified, obtaining employment and producing income. They saw the registration form as just another piece of bureaucratic red tape. A "clean and complete" registration form was not nearly as important in their eyes as it should have been.

A review of the instructions accompanying the registration form also revealed that nowhere in these instructions were the applicants advised that certain fields must contain valid information or that the form would be rejected if this were not the case. In short, even if they had wanted to fill out the form properly, the applicants couldn't tell whether or not they had done so.

Accordingly, the instructions accompanying the registration form were significantly revised, with special emphasis being placed on the importance to the applicants of seeing to it that the registration form was completely and correctly filled out, and on providing them with the information necessary to for them to judge it as "clean and complete."

My third question tied to the fact that almost half of the forms rejected owed to missing or incorrect codes that served to identify organizations where the applicants had been trained, organizations where

they were going to take the test and organizations where they were seeking employment. And so I requested a copy of the code list used by the registrants.

To make another long story short, this very large list was organized in *numerical* order, by code number. The list was exactly what the processing clerks at the testing company required. Their work presented them with a code number and they used the list to look up the corresponding organization. But what the applicants required was a list organized *alphabetically* by organization name so they could look up the name and find its associated code. Given the large, numerically organized list, many applicants became frustrated and entered any old code, made up one, or left the code field blank. And, of course, their registration form was rejected.

The absence of an alphabetically organized code list meant that the applicants were hampered in filling out the registration form. They lacked a critical tool. This hampered their ability to perform in ways they could not overcome.

Consequently, in addition to revised instructions for filling out the form, the registering organizations were provided with a new code list, this one organized alphabetically by organization name, making the identification of the corresponding organization's code a much simpler matter.

Not long after the new instructions and code list were distributed, the reject rate in the operation plummeted to less than 9 percent and stayed there. (Figure 5 below contrasts the before and after state of the reject rate.) My colleague was extremely pleased with the improvement. However, when asked if he wanted it taken lower, he replied, "No, I've got bigger fish to fry." The reject rate problem was now much lower in his priorities.

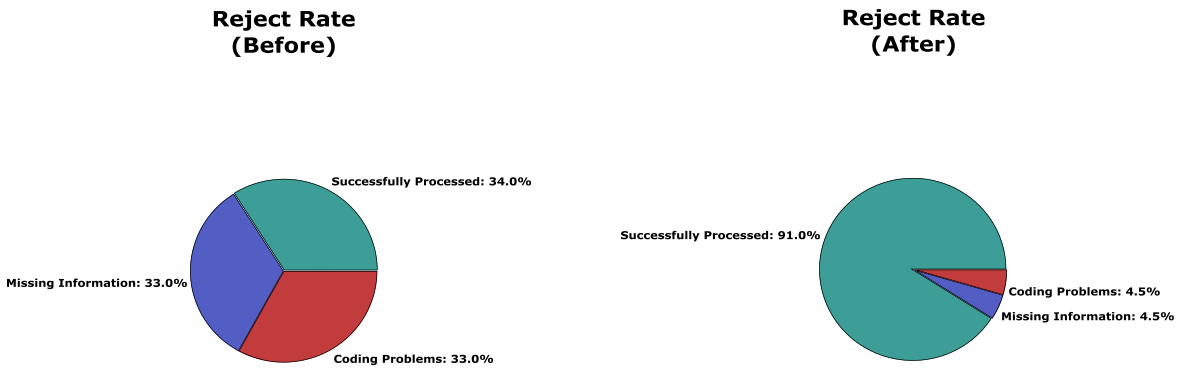

Figure 5 – The Reject Rate (Before and After)

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Three Key Points

Three key points deserve to be emphasized in relation to the Target Model of Human Behavior and Performance that was used in solving the reject rate problem.

Performance Targets are Variables We Care about and Want to Control

In order for anyone to perform as expected or desired, they have to care about the result or product in question and they have to want to do a good job of producing it. Initially, the applicants didn't know or care about what constituted a "clean and complete registration form." They were indifferent to its quality because they weren't aware of its impact on their goals and objectives.

Performers must be Able to Judge their Own Performance

In the end, performance occurs – or doesn't – as the result of performers assessing the effects of their own behavior and correctly judging these effects as satisfactory or not. It is the performer's standards and perceptions that matter because they are the factors that actually govern performance. Initially, the applicants' standards and the testing organization's standards were very different. A key part of solving the reject rate problem involved communicating the company's standards to the registrants and of explaining the importance to the registrants of meeting those standards.

Tools Bridge the Gap between Work and Worker

It is the very essence of work, especially of production tasks, that we use tools to accomplish it. The actions we take to control or influence a target variable can be hampered or facilitated by the tools we use. Tools must be available and they must be suited to the task. The numerically organized code list initially provided to the applicants was available but it was not suited for the task facing them. An alphabetically organized list greatly improved matters.

Some Parting Comments

In closing, I'll mention a couple of the benefits solving this problem produced for the testing company.

- The re-work all but disappeared from the operation in question. This not only reduced the costs of the operation and the charges to the sponsor but it freed up some people who could be reassigned to other work that was short-staffed.
- The frustration and complaints on the part of the applicants also all but disappeared – along with the customer service work associated with handling those complaints. Of the remaining nine percent of rejects, only about half had to be returned.

The next time you encounter a problem related to human behavior and performance, try examining it in light of the Target Model of Human Performance. I'm betting it will prove very helpful.

About the Author

Fred Nickols is a writer and consultant with a long-standing interest in human behavior and performance. He maintains a web site at www.nickols.us and his many free articles are available at www.skullworks.com. Fred can be reached via email at fred@nickols.us.