TITLE: "HOW 'EFFECTIVE' WERE YOU TODAY?"

by Tim Bryce
Managing Director
M. Bryce & Associates (MBA)
P.O. Box 1637
Palm Harbor, FL 34682-1637
United States
Tel: 727/786-4567
E-Mail: timb001@phmainstreet.com
Yahoo! IM: littleleaguerng
WWW: http://www.phmainstreet.com/mba/
Since 1971: *"Software for the finest computer - the Mind"*

"Productivity = Effectiveness X Efficiency"
- Bryce's Law

INTRODUCTION

Okay, you believe you had a great day at work today; that you accomplished a lot. And maybe you did. Then again, maybe you didn't do as much as you might think. A lot of people believe just because they are a model of efficiency, they are being highly productive. This is simply not true. We have discussed the concept of productivity on more than one occasion in this column, but some trends in the I.T. industry have spurred me to revisit it again.

Perhaps the biggest problem here is that people fallaciously equate efficiency with productivity. They are most definitely not synonymous.   Efficiency is concerned with speed of delivery, reduced errors, and minimal costs or effort. In other words, how fast we can perform a given task, at reduced costs, without committing any substantial errors in the process. But what if we are performing the wrong task at the wrong time? Obviously this would be counterproductive regardless how efficiently we performed the task. I always use the example of industrial robots on an assembly line, whereby they can perform tasks such as welding very efficiently. But if they are welding the wrong thing at the wrong time, they are counterproductive.

This means there are two variables involved with productivity: efficiency and effectiveness. Whereas efficiency primarily deals with speed and "doing things right," effectiveness is concerned with "doing the right things." In other words, working on assignments in the right sequence. Sequence can be defined for a single project by its work breakdown structure (WBS) and precedent relationships, or for working on multiple projects based on priority.

ANALYZE THIS

To illustrate this point, let's consider your work activity today (either perform this analysis at the end of the day, or for your last business day).

1. First, let's define your EFFICIENCY rating for the day; as guidelines, use the following:

1.00 - I was a dynamo today; worked fast, no errors.
 .75 - I did more than my share, not too many mistakes.
 .50 - I did my fair share, average number of mistakes.
 .25 - I was below average, some mistakes.
 .00 - Had a bad day; too many mistakes, a lot of time lost.

Enter your EFFICIENCY rating here: _____
(enter any number from 1:00 High to .00 Low)

2. Make a list of your work assignments IN PRIORITY SEQUENCE; (list at least your top five assignments, regardless if it is within a single project or involving multiple projects; obviously you may have more assignments, but let's limit it to five for the purpose of this exercise):

1. _____

2. _____

3. _____

4. _____

5. _____

3. Account for your time during the day using the following form. Be honest.

A. WHAT WERE YOUR "TOTAL HOURS IN DAY" (THD) (The total number of hours spent at work)

_____ hours

B. Of the THD, how much time was spent on interferences or activities not directly related to your work assignments (e.g., breaks, lunch, meetings, reading, surfing the web, e-mail, correspondence, telephone, travel between appointments, etc.)?

_____ hours

(continued from page 1)

C. Enter the number of hours spent during the day on your top five priorities (enter "0" if you didn't work on something); then compute the extended number according to the equation shown:

	HOURS	EXTENDED
#1 Priority	(_____ / THD) X 1.00 =	_____
#2 Priority	(_____ / THD) X .90 =	_____
#3 Priority	(_____ / THD) X .80 =	_____
#4 Priority	(_____ / THD) X .70 =	_____
#5 Priority	(_____ / THD) X .60 =	_____

Note: The hours reported here, coupled with the time recorded for interferences ("B"), must equal the Total Hours in Day (THD). Also, the rates used in the computation are based on priority (highest to lowest).

4. Add the EXTENDED numbers of all five priorities:

_____
(This is your "Effectiveness" rating)

EXAMPLE

A. WHAT WERE YOUR "TOTAL HOURS IN DAY" (THD):

8 HOURS

B. Of the THD, how much time was spent on interferences or activities not directly related to your work assignments (e.g., breaks, lunch, meetings, reading, surfing the web, e-mail, correspondence, telephone, travel between appointments, etc.)?

2 HOURS

C. Enter the number of hours spent during the day on your top five priorities (enter "0" if you didn't work on something); then compute the extended number according to the equation shown:

	HOURS	EXTENDED
#1 Priority	(1 / THD) X 1.00 =	.125
#2 Priority	(1 / THD) X .90 =	.1125
#3 Priority	(0 / THD) X .80 =	0
#4 Priority	(0 / THD) X .70 =	0
#5 Priority	(4 / THD) X .60 =	.3

4. Add the EXTENDED numbers of all five priorities:

.5375
(This is your "Effectiveness" rating)

PRODUCTIVITY = EFFECTIVENESS X EFFICIENCY

Let's put it all together now and compute our Productivity. Let's first start with our example; let's assume we had a pretty good work day and our Efficiency rating (as defined in step #1) was .75. When we multiply it against our Effectiveness rate, we get .403125 .

Next, let's compute YOUR numbers:

_____ EFFICIENCY (from #1)

X _____ EFFECTIVENESS (from #4)

_____ PRODUCTIVITY

WHAT DOES THIS MEAN?

This is but a simple example. It is far from scientific (for example, the efficiency rating is crudely estimated without any level of precision). Nonetheless, the Productivity number highlights the differences between Efficiency and Effectiveness. Using the numbers in our example, if we were to use a perfect 1.00 Efficiency rating (as opposed to .75), the worker's Productivity rating would not be any higher than .5375. This is because the worker spent time on interferences/distractions and worked on other priorities that perhaps he should not have.

I have seen companies who like to plot efficiency ratings on a graph, but as far as I am concerned the data is misleading as they only portray a glimpse of a much larger picture. Plotting the effectiveness rating is just as important as the efficiency rating and helps produce a realistic productivity rating.

CONCLUSION

Some workers, particularly craftsmen, understand the differences between efficiency and effectiveness. They appreciate the total process for building something and are acutely aware of the potential risk for cutting corners. Some simply don't get it (and probably never will). For example, the I.T. industry commonly misunderstands this concept and is obsessed with efficiency. As evidence, consider the use of "Agile Methodologies" today which are quick and dirty approaches for writing a program. Here, a rudimentary program is developed, then radically refined over time until the client signs-off on it. Proponents consider Agile Methodologies to be a quantum leap forward in terms of productivity. I don't. True, they can write code fast, but because they are not well structured, a lot of time is spent revising designs and rewriting code, not just once but several times. Instead of getting it right the first time, Agile Methodologies rely on the efficiency of their power programming tools to make them look good.

So what is a good productivity rating? First, let's dispense with the notion of 100% productivity. This is purely a myth. This would mean that everyone in a company is being both highly effective and efficient around the clock. This is simply not possible. Our example herein shows a productivity rating of 40% which is probably closer to reality. In fact, 25% is considered a good rating and is typical for a lot of companies.

If this paper has done nothing more than raise your consciousness about the differences between effectiveness and efficiency, then it has served its purpose. Hopefully, it will cause you to refocus your efforts on *"doing the right things"* as opposed to just *"doing things right."*

So, how "effective" were you today? Your answer will say a lot.

As a footnote; If you are familiar with my writings on "PRIDE" Project Management, you have heard me talk about "Effectiveness Rate" in differentiating the use of time. What I am describing herein is not the same thing; similar, but not quite. Under the Project Management scenario "effectiveness rate" is an availability rating which is used for estimating and scheduling, but not for calculating productivity.

END

About the Author

Tim Bryce is the Managing Director of M. Bryce & Associates (MBA) of Palm Harbor, Florida and has 30 years of experience in the field of Information Resource Management (IRM). He is available for training and consulting on an international basis.

"PRIDE" Special Subject Bulletins can be found at:

> http://www.phmainstreet.com/mba/mbass.htm

They are also available through the "PRIDE Methodologies for IRM Discussion Group" at:

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The "Management Visions" Internet audio broadcast is available at:

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