



The Psychology of Function Point Counting

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INTRODUCTION

What makes a good Function Point counter?

Most of what has been written about Function Point counting has been from the perspective of describing the correct application of the IFPUG rules. Function Point training is aimed at teaching an understanding of the counting process and applying it in various situations. The purpose of this is clear and necessary: to promote Function Point Analysis as an *empirical science*, to ensure repeatability, and provide value to the consumers of our services.

The measure of validity of an empirical science is to consistently demonstrate (through observation and measurement) predictable outcomes of externally observable actions or behaviors. In simpler terms, if you do *this* correctly, then you always get *that*. Let us call this the *scientific* dimension. If this were all there

is, then effective counting could simply be described as following and applying the rules.

But wait; there is more to the picture. If we want to explore what makes an effective counter, we need to consider several other dimensions that contribute to successful outcomes. At the very least, it is useful to look at *personal*, *social*, and *cultural* influences. The purpose of this article is to examine the role that these influences play in creating effective Function Point counters.

A FOUR-QUADRANT VIEW

According to philosopher Ken Wilber¹ (1996, 2000a, 2000b), everything has an inside and an outside, and a singular and a plural. This may sound simplistic

¹ Ken Wilber is the author of over 18 books, and his work has been translated into 34 languages. He is recognized as the world's most widely published living philosopher.

and obvious, but the implications can lead to a more complete understanding of just about anything we wish to study. If we plot these two dimensions against each other, we get a 2x2 grid with four quadrants, as shown in *Figure 1*. Wilber maintains that anything worth examining is worth examining in terms of each of the four quadrants. This article, then, will examine Function Point counting from a four-quadrant approach, with an emphasis on the individual counter's internal perspective; hence "psychology of Function Point counting."

Singular	Upper Left "I" - <i>personal</i> Inner experience, consciousness; attitudes	Upper Right "It" - <i>scientific</i> Externally observable behavior (skills) and outcomes
	Lower Left "We" - <i>cultural</i> Shared experience, values, ethics, language	Lower Right "Its" - <i>social</i> Groups, Systems, Rules, Laws
Plural	Internal	External

Figure 1. The Four Quadrants

The upper quadrants describe the inside and outside of the singular, the "I" and the "It." The upper right quadrant, the "It," is the realm of empirical science, including physics, behavioral psychology, and Function Point Analysis. The upper left, the "I," represents the internal lived experience of the individual, and includes thoughts, feelings, and the attitudes necessary for the required skills. This is traditionally the realm of the arts, humanistic psychology, and personal experience. It is interesting to note that for much of the past 300 years, since the

rise of the modern scientific worldview, this dimension has largely been ignored in western culture. One of Wilber’s greatest contributions, then, is to reintroduce the validity of inner experience in a context that honors the unique value of each of the quadrants’ perspectives. It is no longer an “either/or” situation, but rather a “both/and.”

The lower quadrants represent the respective plurals of the upper quadrants. The lower left is the “We,” representing shared experience. It includes cultural influences, ethics, values, and language. The lower right quadrant, “Its,” is our social space, the externally observable systems, groups, laws, and rules that we need to live and work in groups.

Figure 2 summarizes the contributions of each quadrant to effective Function Point counting. We will now examine the impact of each quadrant.

	Upper Left	Upper Right
Singular	Inner experience as described by thoughts, feelings, and attitudes	Skills, certification; applying the rules, auditing counts, taking courses
Plural	Lower Left Common terminology and understanding, shared values, codes of ethics	Lower Right IFPUG, CPM, FP classes, support groups, client organizations
	Internal	External

Figure 2. Effective Function Point Counting

4 QUADRANTS

Upper Right

The upper right quadrant contains the observable results of Function Point counting. These are the *scientific* outcomes of the process, and the language used to describe this quadrant is objective, quantitative, and impersonal. For the counter, this includes the results of training, obtaining certification, and the actual doing of the counting in

whatever situations present them. Because correct and verifiable counting is the major objective of the entire endeavor, it remains critically important to focus all of our internal and collective resources on obtaining these outcomes.

We have all seen what happens when the outcomes are not correct and verifiable: organizations’ metrics programs can suffer, Function Point Analysis can get an undeserved bad reputation in client companies and the larger I/T culture, and professional relationships are damaged. We can perhaps do a better job of preventing these disasters through a deeper understanding of the other quadrants’ contributions to the success of the *scientific* dimension.

Lower Right

The lower right quadrant describes the external systems of *social* support for the counting process. Effective counting requires a support system including, for example, IFPUG and the development and maintenance of the Counting Practices Manual. In addition, we as individual counters benefit from a support community, where we can discuss counting issues, novel environments, and rule interpretations, with the result that each one of us will be more effective in producing valid and repeatable outcomes (upper right).

One way to appreciate the value of the lower right quadrant is to imagine not having it. How effective would we be as counters if we did not have IFPUG, if we did not have the CPM, if we did not have training and group support? These elements help to ensure consistent results and provide networking and information sharing among counters. Another important element of the social space of the lower right is our clients. How effective would we be if nobody wanted our services? One of the strengths of IFPUG in this space is its ability to provide industry credibility in promoting Function Point Analysis as a valuable management tool.

Lower Left

The lower left quadrant is the *cultural* space. This is the realm of shared internal experience, Jung’s collective unconscious, the Platonic idea of the *good*. Good Function Point counters need a common

language, a common understanding and implementation of appropriate values and ethics. The cultural space must also be shared with our client organizations: we need to be able to understand each other. These qualities are necessary, but are often ignored or assumed. As with the other quadrants, this is not a problem until something is missing. For example, if a client organization does not understand the meaning of “logical file,” then the outcome of the counting process, *regardless of the knowledge of the counter*, will be unsatisfactory. The value of the all-quadrant approach is to draw a more complete map of reality, which explicitly paints a more complete picture of the process.

Upper Left

What is the personal experience of the good Function Point counter? What attitudes are necessary to result in the required skills? What internal resources need to be in our “bag of tricks” in order to be effective in a variety of situations, working with very different people? These questions are in the subjective realm. The answers cannot be measured (and hence have been traditionally excluded from empirical inquiry), but rely instead on direct experience. However, since the root meaning of the term “psychology” is *study of the mind*, and mind exists in subjective space, it is valuable to examine direct experience.

One way to approach this quadrant is to consider the varieties of internal orientation that give rise to useful counting skills. The remainder of this article will focus on the psychological (upper left) attributes of effective counters, using a Jungian archetype approach to understanding and categorizing internal experience.

WHAT’S YOUR ROLE?

Personality theorists José Stevens and J. P. van Hulle (1990) and Shepherd Hoodwin (1999) have described a series of seven “roles” that tend to organize our experience. Each role represents an archetype: a complete personality type that interacts with the world in a coherent, authentic way. Our role determines our intentionality (our possible range of intentions) and influences the attitudes that we present to the world. While each person tends to live mostly in a single role, the attitudes and inner

resources of each role are *available to all of us*, and can be developed and learned.

The seven roles are: *Server, Artisan, Warrior, Scholar, Sage, Priest, and King*. It is my contention that by consciously drawing on the attitudes and energies comprising each role, we can become more effective in applying the skills needed to be good Function Point counters. A consideration of the roles may also be useful in evaluating our own skills and developing those in which we could use strengthening.

Servers are concerned with supporting and helping others, and are interested in the well being of the entire system. A Function Point counter can draw on *server* attitudes to provide a friendly environment for a counting session, with the clear understanding that this will encourage the applications expert(s) to provide more complete information in the counting interview. Server energy can also be valuable in building group support for meeting company goals, again by stressing the importance of a friendly work environment. Similarly, *server* energy can have a unifying effect on a team of counters acting as a support group or consulting team.

Artisans live to create. They thrive on innovation and originality. We have all experienced counting situations in which the right people were not available, or documentation was missing, or there were other obstacles to proceeding in an optimal, orderly counting process. Nevertheless, we drew upon our *artisan* energy to invent a way through the difficulty. Without this creativity, the process could have remained stuck, preventing a successful outcome. Another example of *artisan* energy is in drawing on creativity in applying the Function Point rules to unusual technical or application environments, perhaps including Web or real-time situations.

Warriors are very common in the corporate environment, especially in technical fields. *Warriors* are motivated by loyalty to a vision, often embodied by a charismatic leader (see *king* below). They demonstrate enormous persistence in applying whatever effort it takes to get the job done. *Warrior* energy is a valuable internal resource for Function

Point counters, who must often perform well in spite of difficult environments, uncooperative developers, and little support. Some specific examples of *warrior* energy in a counting situation would include planning and organizing the counting sessions, keeping the group focused through the process, and following through on unresolved questions. The other roles owe a great debt to the *warriors*; without *warriors*' attitudes, very little would get done.

Scholars are knowledge sponges. They want to learn everything about what interests them, and they can be valuable resources for working teams or as teachers. As Function Point counters, we draw upon *scholar* energy in both teaching and using our thorough knowledge of the counting rules, and our ability to use discriminating judgment in applying them to unusual counting situations requiring subtle interpretations and careful explanations. A *Scholar* can also make an excellent mentor, and can act as a "walking library" for a group of less experienced counters.

Sages love to perform, entertain, and share what they know (and sometimes what they do not know). *Sage* energy is a wonderful resource to bring to a presentation or to any situation where verbal communication and expression are important. *Sages* tend to develop good facilitation skills, they are good at keeping people's interest, and can be adept at the appropriate use of humor. Function Point counters can benefit from developing *sage* skills in order to charm, disarm, and otherwise distract *warrior* clients (who would often prefer not being interrupted in their work for metrics "overhead") into providing good information. *Warriors* and *artisans* appreciate the *sages* in their midst; without the *sages*, the *warriors* and *artisans* would have to fill the sales and marketing positions.

Priests are inspirational and are motivated by compassion. Their presence reminds us of our vision. *Priest* energy can be useful to a Function Point counter in situations where nothing less than inspiration will get unmotivated clients unstuck, and no amount of *sage* presence will budge them from their inertia. As with the other roles, *priest* energy is not something that we *do* so much as our presence,

our inner attitude, in a sense what we *are*, and a "hat" we can put on when needed.

Kings always see the big picture. They delegate, inspire loyalty, and keep the entire system moving. In an organization, *king* energy sets the mission and articulates the vision, while *warriors* carry it out. *Kings* represent the smallest percentage of the population, which is probably a good thing. Function Point counters can draw on *king* energy when leading a large and complicated counting project requiring the orchestration many different resources and roles.

It may be interesting to look at some examples of the interaction between different roles in a counting situation. For example, suppose a counter is under time pressure to complete a count, without having the time to train the applications experts in Function Point counting. Suppose, in this situation, the client is a *scholar*, and wants to know everything about the counting process? Perhaps in this instance, the counter (who has facility with all the roles' energies) using *artisan* creativity or *sage* charm could redirect the scholar's energy into better disclosing the details of the application being counted (about which the *scholar* knows everything!). Alternatively, the counter could out-stubborn the scholar with *warrior* persistence.

Another fairly common counting experience is in working with a client (application expert) who is an *artisan*, and, after learning a little bit about Function Points, wants to improve on the idea and invent a better Function Point. Should the counter be nurturing of the creativity (*server*), invite a major written proposal (*scholar*), provide distractions with laughter (*sage*), or firmly bring the discussion back to the task at hand (*warrior*)?

The value of examining these situations is not in coming up with formulas for different combinations, but in expanding our awareness in what our options are to be more effective.

SUMMARY

Effective Function Point counting depends on more than descriptions of externally observable results. Using Wilber's four-quadrant model, I have

attempted to outline how the *personal, social, and cultural* dimensions contribute to the outcomes. I have emphasized the various attitudes and inner resources, as expressed by the seven *roles* that counters can draw upon to be effective in producing consistent, empirically verifiable, *scientific* results.

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