

One In a Million: Individual Work and Space

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Individual workstyle is influenced by many factors such as personality, situation, social context, pressure, environment and personal expectation.

This paper theorizes on the relationships that exist between individuals, how they do things in the office, and how to best plan environments for those consistently displayed behaviors.

Insights are offered on the differences that profession, personality, and past experience have in determining what constitutes adequate environmental support. Also included are suggestions on group implications (teaming) for various individual work-styles. Not all "teams" are alike!

Imagine

If asked to close your eyes and imagine a peaceful place where you can concentrate your thoughts and possibly solve a problem; no doubt the last place you'll think of is your office at work. It's doubtful that you thought of a crowded room filled with strangers or of awkward, institutional furniture akin to what you last used when you took your "driver's test" at the local Department of Motor Vehicles.

Working space as an entity is rarely thought of as having even remote connotations of pleasantness, comfort, or desirability. Working space does however, have quite a "touch" on individual and group productivity, individual well-being, communication of organizational values and norms, as well as having a direct impact on the organizational commitment that employees display.

It is plausible that the Department of Motor Vehicles as mentioned earlier has an impressive efficiency record. As an environment it's planned for the efficient processing of people and information. The color, furnishings, lighting, and air quality all lend themselves to a model

of "transaction with ruthless efficiency". Get in, get it done, and get out. Cost effective space that could well be the ideal facilities model for an organization.

On the other hand, let's consider the other end of the state; the office of the Governor. Plush velvet drapes, hand carved walnut desks with considerable ornamentation. Walls covered with icons of stability, effectiveness, commitment, prosperity, and hope. I have yet to see a fluorescent ceiling fixture in any gubernatorial chamber. These spaces lend themselves not to ruthless efficiency but to strategic intent. Calm, introspective, arenas in which people contact and the influence of ideals is central. These two environmental extremes illustrate how social relations and physical conditions impact behavior, performance, and expectations. Physical conditions of work and the impressions they form within us remain a hidden dimension within organizations in spite of studies that have demonstrated the relationship between the adequacy of objective environmental conditions (such as air quality, lighting, furnishings, and access to natural views) and job satisfaction.

Job Satisfaction and the Environment

Keep in mind that the individual components of job satisfaction (in reality, the majority of topics) reach far beyond the physical environmental into areas of organizational management, individual motivation, individual health, meaningfulness of work, compensation, and a host of issues that lie beyond the sphere of influence of most Corporate Real Estate (CRE) groups.

A prime focus in the arena of satisfaction will center primarily on person–environment studies. Within this discipline it has been demonstrated that occupants assess the physical environment based on that settings' adequacy for the task at hand, arrangement, symbolic features, and the amount of control over the design and use of that space. These are the central elements that impress an occupants' overall "sense of place".

While this impact has been viewed as large as 10% and as little as 4% in overall "value", it constitutes a value which is variable and able to be manipulated for the well-being of a population. As for the low percentage, remember that the "bit" in a racehorses' mouth, while representing a small percent of the racehorse affects a large degree of where that racehorse goes and just how quickly.

These key environmental features can (and will) be interpreted by individuals in a myriad of ways and will manifest themselves in individual perceptions of conditions that include the adequacy of lighting, temperature and humidity preferences to crowding, density, and a sense of physical security. Interpretation of these conditions will drive people to seek an optimal, individually determined level of comfort and social interaction which will be accomplished primarily through adjustment of the physical environment.

Failure of the environment to support this need for individual adjustment begins a downward spiral that may begin with lowered environmental satisfaction. Lowered environmental satisfaction has been linked to decreased productivity and lower job satisfaction which has in turn been linked to reduced organizational commitment.

The Price of Success

Planning modes that stress primarily facilities efficiency through efforts to contain costs through reduction of gross square footage per person, introduction of homogenized work environments for the sake of simplification and the sacrifice of individuality for the benefit of utility, are essentially programs that are high risk, short-term "firecrackers" that increase the likelihood of environmental dissatisfaction. Having outlined the results of dissatisfaction, I propose we dwell on the possibilities of satisfaction.

Our earlier discussion of person-environment fit highlights that congruence in this realm is a significant predictor of job satisfaction. Ensuring that adequacy, arrangement, symbolic feature, and control are best supported for the individual becomes a central theme in the design program phase of project planning. Central to that task is an understanding of the nature of work and human interaction. HR professionals are keen in this effort of linking personal ability and potential to specific job requirements.

When hiring staff, it is essential to know if the task to be performed is strategic or tactical in nature. Simply put, you're either planning or doing and strategic ability along with tactical effectiveness rarely resides in one person. If we take this dual model and further refine it – we can see a framework being established for a "taxonomy" of styles of work that are a clustering of individual work behaviors. These individual work behaviors are influenced in large by specific personality

traits, by situation, by experience, and by individual expectations.

One key assumption here is that personality traits are stable over time. Behaviors may change per situation but personality in adults, largely, remains constant .

A Second key assumption is that personality influences vocational interests. With these conditions as a social framework, we can begin to place individual task behaviors into four separate quadrants that display a "competing values" relationship. This relationship has significant physical environmental implications for both the individual and their larger related work groups. These environmental implications frequently are ignored, misapplied, misunderstood, or are erroneously used as a fulcrum to "change" personality/behavior in the belief that a larger, organizational "cultural shift" will ensue.

By understanding these individual nuances in problem approach and resolution - and by instituting a methodology aimed at identifying issues and aiding on behalf of the occupant in the articulation of what constitutes meaningful dimensions of environmental preference - it may be possible through design to lessen the chasm between building centric and human centric design logic.

A Model of Work Behaviors (See Appendix A)

It is proposed here that a model exists in which specific, preferred ways of working can be identified and that behavioral traits related to individual personality are key determinants of those preferences.

To understand the model, we must first understand this behavioral clustering of which there are four distinct categories:

- **Transactional**

Characterized by work that may be lower

in autonomy and lower in interaction, transactional work is typically high in task focus and requires a worker to spend a large amount of time in his or her primary workspace (high occupancy). The work may be characterized as being “systemized and routine” with strict adherence to standards being the norm. The social implications arise in the fact that visual connectivity to peers is important for social value as much as for active problem solving. There is typically a low expectation for privacy.

• Concentrative – Technical

Concentrative – Technical workers typically are involved in work that is high in autonomy and lower in interaction, hence the amount of visual and acoustic separation is increased. These workers typically find their assignments to be challenging, requiring action and results orientation. Efficient methodologies are employed in the studying and solving of problems. A high degree of concentration is required and visual connectivity to peers becomes less important for individual work output. Extroverted individuals find these environments “stifling”.

• Concentrative – Collaborative

Concentrative – Collaborative workers are typically involved in work that is high in autonomy and high in interaction, hence the amount of privacy (the interaction barriers) is reduced. Efforts are more people focused than task focused and persuasive communication, testing of new ideas, and immediacy of action become central to work process. Introverts are typically quite uncomfortable in these environments.

• Consultative

Space implications for Consultative workers reflect the need for work to be done distraction free for significant periods of time. Typically this group deals with strategic thought and high degrees of confidentiality. The very nature of the work is based on the

effective handling of organizational and competitive intelligence as well as internally focused personnel issues. Coaching and counseling are key functions as “solutions to people problems” usually reside here. Optimistic outlook, mobility and the ability to verbalize thoughts and ideas effectively are prime functional requirements of these individuals. This group of workers generally has the lowest occupancy rates for a given space.

Within this model of work behaviors there exists the ability to blend primary and secondary workstyle characteristics to better accommodate individual occupant preference. For example, an engineering project manager may well follow the characteristics of Concentrative – Technical and Consultative work styles. The work function requires a mid level degree of skills with people, a high degree of skills with data such as analysis and synthesis, and a lower level of skill with the manipulation of things (it’s helpful if the PM can set up a brake press and do steel layout, but not essential to the function).

This blending of primary and secondary characteristics allows for a finer interpretation of work behaviors and suggests that the immediate environment supporting those tasks be outfitted to better accommodate requisite levels of concentration and interaction.

In the case of our imaginary engineering project manager, our reflected environment will need to support not only distraction free work, but will need immediate interaction space. The conundrum that ensues from the contrast of workstyle and organizational need (I need privacy with total accessibility) is one that is common in North America.

The answer lies within the organizational culture implications that parallel this study.

Workgroup Implications (See Appendix B)

Along with these four individual work taxonomies come workgroup implications. Four workgroup types that have been previously identified are: Advice/Involvement, Project/Development, Production/Service, and Action/Negotiation.

Work at the level of the individual has a root value that is critical to future group effort, and space that adequately supports individual effort is essential. A macro-level organizational trend that has been occurring over the last 30 years includes the shift from “departmental silos” to integrated solutions. A similar trend in the changing nature of work is the shift from independent to collaborative effort. Organizational synergy such as the sharing of information and skills across work and organizational types and is vital to effective utilization of corporate intelligence.

These macro-trends have forged environmental conditions which have forced workers, previously unfamiliar with group process to become part of a “larger solution”. Still, those independent work types harbor a degree of commonality in work output and the group process designed to support such reflect a consistent pattern. Those patterns are identified as follows.

Within the Transactional model, the typical work team composition (work team is defined as small groups of interdependent individuals who share responsibilities for outcomes of their organizations) can be described as Advice/Involvement. These groups are typically committees, review boards, quality control circles, employee involvement groups, and advisory councils. The output from these groups is usually in the form of decisions, selections, suggestions, proposals or recommendations.

Physical proximity and group territory and boundary markers are important for identity purposes only and variation in environment is not important. Technologic

connectivity is low as is the need for dedicated space. Work team differentiation is low – that is its membership is composed of individual members and there is often a short group life and a limit to the amount of working time.

The Concentrative – Technical group is characterized as a Project/Development group. This is typically a research group, planning team, architect or engineering team, a development team or task force. Physical boundary and proximity of individual members is of critical importance. Variation in environment is important (meaning a variety of environments are available to the members) as is technological connectivity. Time involved on task is substantial and as such there is a strong need for dedicated space.

Members are usually expert specialists and may have an extended team lifespan. Work cycles typically differ for each project and one project may represent the team lifespan. The output from this type of group may be plans, designs, presentations, prototypes, reports and findings.

The Concentrative – Collaborative group environment can be described as a Production/Service offering. Physical proximity and group territory may be of greater importance as the need for immediacy precipitates the actions of the members. Interaction is essential in information gathering and dissemination so proximity gets high marks for importance. These groups may have variable membership requirements and are occasionally marked by high turnover. There is a variable team lifespan and work cycles are typically repeated or a continuous process. Typical outputs of these groups may be in the form of food, chemicals, components, assemblies, retail sales, and customer service.

The last group, Consultative, is considered as an Action/Negotiation team. These are characterized as negotiation teams,

surgery teams, expeditions, contract, or lawsuit teams. Physical proximity and group boundaries/territories are important in their symbolic value, but not in tactical value.

Organizational Culture Implications

(See Appendix C)

These individual and group taxonomies have specific spatial requirements and expectations in the form of worksurface amount, amount of enclosure, storage for individual and group, square footage of floorspace, technology integration, and individual space occupancy patterns. It is interesting to note that when the Individual Workstyle evaluation of an individual is placed in an Organizational Culture context, the result is an individual expectation of environmental preference that is moderated by the cultural implications.

In a competing values framework of organizational culture such as identified by Kim Cameron and Robert Quinn in their 1999 “Diagnosing and Changing Organizational Culture” publication – it becomes apparent that overlaying cultural taxonomy over workstyle taxonomy results in a finer description of spatial expectation.

Recalling the implications of individual personality in profession and problem resolution paths, it is now possible to add the implication of organizational personality to this mix.

Cameron and Quinn identify four distinct organizational types: Hierarchy, Clan, Adhocracy, and Market. Each of these social constructs has group level relevance which helps explain why differing industries at different levels of maturity use similar, consistent human skill sets and obtain markedly differing results. The organizational construct is in essence, the context of behavioral condition. One acts very different in a conservative social setting than in a

relaxed or casual social setting. Ever wear tennis shoes and jeans to a formal dinner?

To continue illustrating this theory, let’s revisit the earlier mentioned mythical engineering manager. If the cultural context of that manager fits with in a more “adhocratic” description, the likelihood of being assimilated into a culture of entrepreneurial spirit is greater. The likelihood of distractions being tolerated and design solutions being more inclusive of “immediacy of interaction” type space is increased. If, however, the organization follows a more traditional path such as the “hierarchical” description; then the chances of interruptions being viewed as “intolerable” will increase. Collaborative space may ultimately be positioned further away from the immediate locus of individual work.

Organizational Soothsaying?

How does one begin to identify and prioritize these conditions in an attempt to align organizational goals and conditions with individual needs? Is it even possible to diagnose and resolve individual and group level environmental issues with seemingly simple, heuristic recipes? Is it even advisable?

As mentioned at the onset of this paper, organizational development is a complex process and environment represents (academically) a largely untested field of theory, tale, trial and error with no central repository for lessons learned. Combine this with that hopeless variable of the insanely adaptive, yet predictably inflexible cat know has “human” and you have a stage set in which we can better define what we don’t know, than what we do know. Given these complexities and the desire to constrain capital costs within an organization, the remaining challenge for the design profession becomes one of optimization of space.

The design profession at large has given

us much in terms of constructive, effective, intuitively derived, solutions in this arena and have demonstrated an understanding of the impact that environment can possess on individual behavior. If we take and build upon that body of experience, our goal of effectively identifying and managing key cultural and individual orientations (behaviors) becomes a task that is more accurately aligned with the optimization of space. This effort is a critical step in fostering job satisfaction.

This attempt to align singular needs of individuals with the convergent needs of many is but initial steps in the process of optimizing workspace. The thought of being "one in a million" is neither appealing nor complimentary to individuals. Better insight into the uneasily articulated conditions and expectations of those workers can lead to optimized workspace for them, helping to possibly remediate the negative effects of space that may have been previously allocated with goals other than these in mind.

Appendix A

Workstyle Determination

The clustering of behaviors into these four segments is a strategic alignment based on personality influenced aspects of task accomplishment based on conditions of introversion/extroversion, stress/comfort, concentration/distraction, and task complexity. This strategic alignment is an antecedent of a tactical application of environment.

While personality profiles in no way can guarantee individual behavior or preference, the likelihood of there being a relationship between behavioral traits and individual personality; and those traits following specific *predictable* patterns has been widely identified.⁶

With the identification of individual characteristics, it becomes paramount to place them in a competing values framework. The illustration below places the four distinct work behaviors into social and environmentally opposing positions.



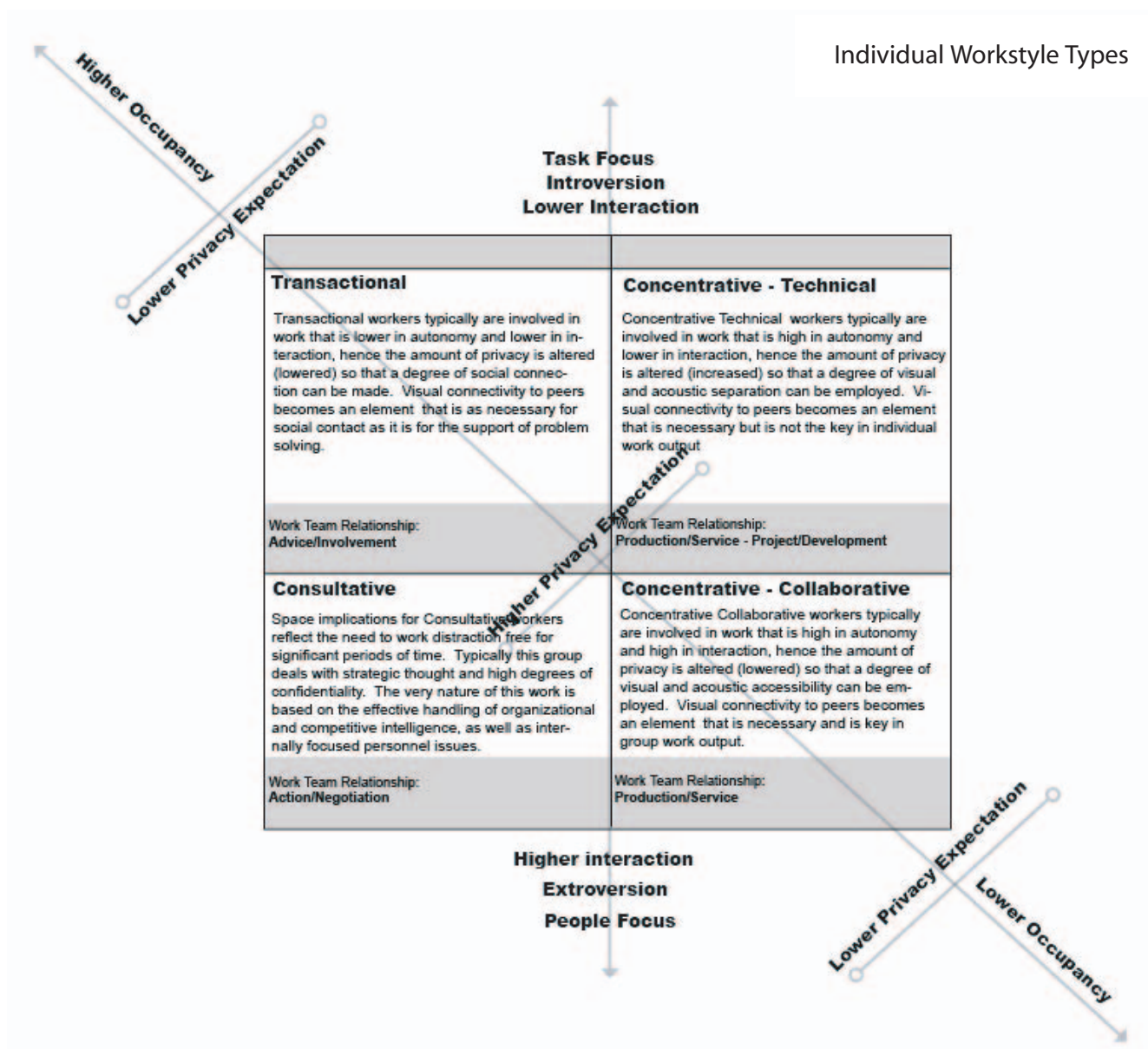
⁶ Robert & DeVecchio (200) "Big five personality traits show moderate to high levels of stability during adulthood."

On the upper portion of the scale we can see a general increase in occupancy rate, task focus as the locus for work, a likelihood of introversion, and a lower amount of face to face interaction.

The lower portion of the scale represents an increase in face to face interaction, a greater tendency towards extroversion, lower occupancy rating and a shift towards a focus on people as a locus for work.

Privacy expectations among the four groups are demonstrated by the diagonal line in which the *Concentrative Technical* and *Consultative* functions display a higher perceived need for privacy. Inversely, the workstyles of *Transactional* and *Concentrative Collaborative* have a lower expectation of privacy (the term "expectation of privacy" is not to be confused with the "desire for privacy").

Individual Workstyle Types



Appendix B

Collaborative Dimensions

Work teams—small groups of interdependent individuals who share responsibility for outcomes of their organizations

Key Team Aspects		Work Team Differentiation	External Integration	Work Cycles	Typical Outputs
Team Taxonomies	Advice/Involvement	<p>Low Inclusive of representative membership, often short group life and/or limited working time</p>	<p>Low Often few demands for synchronization with other workunits, external exchange is minimal, work cycle may not be repeated</p>	<p>Work cycles can be brief or long; one cycle can be team life span</p>	<p>Decisions, selections, suggestions, proposals, recommendations</p>
	Production/Service	<p>Low Variable membership requirements, sometimes high turnover, variable team lifespan, often special facilities</p>	<p>High Externally paced work usually synchronized with suppliers and customers inside and outside the organization</p>	<p>Work cycles typically repeated or continuous processes; cycles often briefer than team life span</p>	<p>Food, chemicals, components, assemblies, retail sales, customer service, equipment repairs</p>
	Project/Development	<p>High Members usually expert specialists, task may require specialized facilities, sometime extended team lifespan</p>	<p>Low Often internally paced project with deadline, little synchronization inside organization, task can require much external communication</p>	<p>Work cycles typically differ for each new project; one cycle can be team life span</p>	<p>Plans, designs, presentations, prototypes, reports, findings</p>
	Action/Negotiation	<p>High Exclusive membership of expert specialists, specialized training and performance facilities, sometimes extended team life span</p>	<p>High Performance events closely synchronized with counterparts and support units inside the organization</p>	<p>Brief performance events, often repeated under new conditions requiring extended training and/or preparation</p>	<p>Combat missions, expeditions, contracts, lawsuits, concerts, surgical operations, competitions</p>

Advice/Involvement	(G1)	Committees, review panels, boards, quality control circles, employee involvement groups, advisory councils*
Production/Service	(G2)	Assembly teams, manufacturing crews, mining teams, flight attendant crews, data processing groups, maintenance groups
Project/Development	(G3)	Research groups, planning teams, architect teams, engineering teams, development teams, task forces
Action/Negotiation	(G4)	Sports teams, entertainment groups, expeditions, negotiation teams, surgery teams, cockpit crews

*Source: *Work Teams: Application and Effectiveness*
Sundstrom, DeMeuse, Futreil
American Psychologist-February 1990

Appendix B, continued

Collaborative Dimensions

Environmental Implications

Advice/Involvement	(G1)	Physical proximity and group territory/boundary markers are less important. Variation in environment not important. Technological connectivity is low. Time involved on task is low. Need for dedicated space is low.
Production/Service	(G2)	Physical proximity and group territory/boundary markers are more important. Variation in environment not important. Technological connectivity is medium. Time involved on task is more than G1, less than G3. Need for dedicated space is of medium importance.
Project/Development	(G3)	Physical proximity and group territory/boundary markers are critically important. Variation in environment important. Technological connectivity is important. Time involved on task is substantial. Need for dedicated space is of optimum importance.
Action/Negotiation	(G4)	Physical proximity and group territory/boundary markers are of low to medium importance although expectation/entitlement plays a role here. Variation in environment is not important. Technological connectivity is important. Time involved on task varies from medium to substantial. Need for dedicated space is of minimal importance, however need for a distinctly "delineated" space is of utmost importance ("those are the King's carrots...").

Individual Workstyles

Transactional	Intense paper management, archival, non-collaborative, minimal PC and peripheral requirements, keeper of supplies, frequent "people breaks", owner of "support activities" Folding/stapling/mailings, transcription, data entry, 90% occupancy (clerical, some financial, data entry, customer svc, telephone solicitation).
Concentrative/Technical	Large paper size and volume, occasional intense volumes of paper and reference, pack-rat mentality, high PC and peripheral requirements, more inclined to work non-collaborative. Linear process, multiple projects 80-90% occupancy, information intense, at my fingertips...information systems, drafting - engineering.
Concentrative/Collaborative	Less PC and peripheral intense than CT. Social, some concentrative required, quite collaborative, noisy groups, less binder, more file and archival oriented, 80-20% occupancy (sales organizations, marketing functions, design, some engineering, team\project leaders, purchasing functions).
Consultative	Consultative, human interaction, must be free of distractions, Executive, must assimilate information, visibly accessible, concentrative, higher degree of confidentiality (member relations) ,Travel, 60-10% occupancy, filing may be archival and binders, reference material-minimal (supervisory to executive management, consultants,visionaries, direction givers).

Appendix C

Cultural Implications

Organizational Taxonomy	Market	Adhocracy	Hierarchy	Clan
Transactional Focus on linear through-put information processes. Low autonomy/ low interaction	T1 C1 P1 E1 O1 G1 F1	T1 C1 P3 E1 O1 G2 F1	T1 C2 P2 E1 O1 G1 F2	T1 C1 P2 E1 O1 G2 F1
Concentrative/ Technical Increased reference material, more concentration, less likely to need meeting space at the workstation level	T1 C1 P2 E2 O2 G2 F2	T1 C2 P2 E2 O2 G3 F2	T1 C2 P3 E2 O2 G3 F2	T2 C2 P2 E2 O2 G3 F2
Concentrative/ Collaborative Relies on social interaction to externalize, lower occupancy, lower reference materials required	T2 C2 P2 E2 O2 G2 F2	T2 C3 P2 E3 O3 G2 F3	T2 C2 P3 E2 O2 G2 F3	T2 C2 P2 E2 O2 G2 F3
Cosultative Distraction free human interaction, strategic thought confidentiality, low occupancy	T3 C3 P2 E3 O3 G4 F3	T3 C3 P2 E2 O3 G3 F3	T3 C3 P3 E3 O3 G4 F3	T3 C3 P2 E3 O3 G4 F3

T=Technology (computer focus)

- T1 100%
- T2 80%
- T3 20%

E=Enclosure

- E1 Low: 0-50" @ 50% surround
- E2 Medium: 50-64" @ 75% surround
- E3 High: 64-82ftc @100% surround

C=Collaboration (surface)

- C1 20 sf of worksurface
- C2 25 sf of worksurface
- C3 31 sf of worksurface

O=Occupancy

- O1 80-100%
- O2 60-90%
- O3 40-70%

P=Process (storage)

- P1 2.18 cubic feet drawer storage
36 lineal inches file storage
- P2 4.36 cubic feet drawer storage
80 lineal inches file storage
36 lineal inches overhead storage
- P3 4.36 cubic feet drawer storage
148 lineal inches file storage
72 lineal inches overhead storage

G=Group Work

- G1 Advice/Involvement
- G2 Production/Service
- G3 Project/Development
- G4 Action/Negotiation

F=Floorspace

- F1 36 feet² (<)
- F2 64 feet² (~)
- F3 90 feet² (>)