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"College students of the eight Perceiving types effectively approached academic work using time and space in ways discouraged by experts. A theory was developed to explain and affirm the power of the Perceiving preference."

Building Momentum: The Unconventional Strengths of Perceiving College Students

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ABSTRACT

College students are directed to many resources on study skills, time management, and organization. Conventional resources focus on schedules, order, and outcomes, and educators promote this emphasis as ideal—the best way to be successful. However, many successful individuals, including those with the Myers-Briggs® psychological type preference for Perceiving who comprise close to 50% of U.S. college students, employ unconventionally time-flexible and process-oriented approaches. The purpose of this study was to increase understanding of successful college students whose approaches diverge from the conventional ideal, through an examination of Perceiving students' patterns of academic behavior and perceptions of their own competence, autonomy, and self-esteem. This qualitative, grounded theory study focused on 19 academically successful college students of traditional age with confirmed Myers-Briggs psychological types of ISTP, ISFP, INFP, INTP, ESTP, ESFP, ENFP, or ENTP. The students valued learning, considered themselves capable, and worked to meet their own standards. Most had positive feelings about working unconventionally in a conventional environment, but some experienced a lack of faculty and institutional support. Perceiving students'

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academic practices were found to be contrary to strategies promoted as ideal in college success and study skills texts. A theory was developed to further explain Perceiving and its influence on ways of using time and space. Findings supported the dimensions of *Unconstrained Time*, *Entirety, Continuity, Awareness*, *Augmentation*, and *Momentum*. The core dimension, *Momentum*, explained (a) the challenge of *getting started* (*waiting to start*), (b) the value of working *all at once*, (c) the energy of working *at the last minute*, and (d) the surprising significance of *not going back*.

Note: For the Myers-Briggs Type Indicator® (MBTI®) instrument, the eight preference categories are the following: Extraversion (E) versus Introversion (I), Sensing (S) versus Intuition (N), Thinking (T) versus Feeling (F), Judging (J) versus Perceiving (P).

INTRODUCTION

In Myers-Briggs psychological type theory, individuals are said to deal with the outer world of people and things—to do life—with an approach that is either (a) planned, outcome-oriented, and systematic due to extraversion of the preferred judging function; or (b) spontaneous, process-oriented, and flexible due to extraversion of the preferred perceiving function (Jung, 1971; Myers, 1980; Myers, McCaulley, Quenk, & Hammer, 1998; Quenk, Hammer, & Majors, 2001). During the researcher's ten years of experience in teaching college students about type, she developed a deeper understanding out of informal observation. Behind the love of order and planfulness of Judging types, regardless of preference for Sensing or Intuition, there seems to be a sense that time is segmented, with frequent starts, stops, and restarts. Along the way, those with a preference for Judging segment their time into slices so they can experience completion over and over again (the researcher self-identifies as INFJ). When Judging students work on projects or papers they can more easily divide the work into parts, do a little at a time, and begin where they left off. They can decide to return to a work product to edit or revise. They can budget and spend their time in increments. Judging students often prefer to finish a task with time to spare because waiting too long or too late is uncomfortable—it feels as if time will end. These patterns of behavior, typical of students with a preference for Judging who are successful in academic settings, seem to be driven by a conceptualization of time as finite and divisible.

For people with the adaptable and open Perceiving preference, on the other hand, it seems that time is continuous and resistant to interruption once a work process has begun. Thoughts and actions flow as the individuals become interested in objects and events, and experiences are connected and ongoing. When Perceiving college students work on a paper or project, they may think about various aspects of the assignment for quite a while before demonstrating any observable work effort. At some place in time, the location of which is typically indescribable, everything comes together and the product is complete, often right at the deadline. Rather than a burst of inspiration in which new ideas come into being, this is a burst of activity, coordination, and combination. It is as if pieces of a puzzle—previously collected, examined, and known—rapidly fall into place.[1] Perceiving students say it can be very difficult to revisit work products for editing or rewriting, since mustering up interest on demand (deciding to start again) often seems impossible. A sense of wholeness and *continuity* shapes the flexible habits of academically successful Perceiving college students.

Judging and Perceiving in Education

The numbers of students with preferences for Judging and for Perceiving are fairly equal, but among professionals in education at all levels the ratio of preference for Judging over preference for Perceiving is at least 2:1 (DiTiberio, 1996; Sears, Kennedy, & Kaye, 1997). The nature of educational environments is presumably affected by this imbalance (Hammer, 1996). In addition, educational interventions are typically undertaken in the natural style of the individuals with the power to create the programs (Dunn & Dunn, 1978; Fairhurst & Fairhurst, 1995; Francis, 2000; Gardner, 1993; Meisgeier & Meisgeier, 2000). It is not surprising, therefore, that educational policy and practice have been shaped by priorities and methods favored by educators whose psychological type characteristics are associated with the Judging preference.

As a result, Perceiving students' spontaneous and adaptable habits may be identified as irresponsible or immature (Lawrence, 1997). Perceiving students tend to be flexible and tolerant, like choices, seek more information, like to juggle several projects at once, and usually think there is plenty of time to complete work (Fairhurst & Fairhurst, 1995; Lawrence, 1997; Mamchur, 1996; Provost, 1999). They may seem "indifferent to the established, especially if imposed by others" (Keirsey & Bates, 1984, p. 106). As the level of educator understanding varies, the educational needs of Perceiving students may remain unmet or even unrecognized (Hammer, 1996).

The U.S. college student population is almost evenly divided between Judging and Perceiving preferences; 55% of students self-identify with the eight Judging types and 45% with the eight Perceiving types (DiTiberio & Hammer, 1993; Myers, McCaulley, Quenk, & Hammer, 1998). Historically, Judging types have been associated with higher academic self-esteem before college entrance (Schaefer, 1994) and higher grade point average during college (Hammer, 1996; Myers, McCaulley, Quenk, & Hammer, 1998; Schurr, Ruble, Palomba, & Pickerill, 1997). However, a more recent study of college freshmen did not find a significant difference between Judging students and Perceiving students in terms of their grades (Kahn, Nauta, Gailbreath, Tipps, & Chartrand, 2002). Both Perceiving and Judging students can exhibit high levels of academic achievement and are equally represented among both college dropouts and members of the Phi Beta Kappa honor society (Macdaid, 2003).

Perceiving college students like to solve problems informally, work impulsively with changes in pace, and stay open to new information. They want faculty who are entertaining, inspiring, spontaneous, and flexible (DiTiberio & Hammer, 1993; Provost, 1999). They may think of learning as "a free wheeling, flexible quest . . . and feel 'imprisoned' in a highly structured classroom" (Jensen, 2003, p. 126).

Perception creates a natural resistance to the prioritization and systematization used by many Judging students. Since Perceiving students use perception first and bring judgment to bear later in their learning processes, they tend to delay the assignment of relative value to information, material, and resources (Jensen, 2003; Myers, 1980; Myers, McCaulley, Quenk, & Hammer, 1998). This waiting does not lend itself to order or routine, so Perceiving students' most effective ways of studying may appear inconsistent and impulsive in comparison to conventional academic practice (DiTiberio & Jensen, 1995; Provost, 1999).

The Importance of Time

Conventional ways of dealing with time—typically promoted as guides for college students' academic lives—incorporate strategies aligned with the Judging preference including (a) clearly defined timeframes, (b) reminder systems for deadlines and due dates, and (c) limitation of leisure time in favor of work-related periods (Fitzsimmons, 1999; Lawrence, 1997). However, these out-of-character strategies require much effort from Perceiving students and are typically not sustainable "because they are not part of the natural rhythm of their learning process" (Lawrence, 1997, p. 27). Demarest (2001) cautions that time management, as used by people of different types, means being able to work toward and complete tasks that matter rather than simply following a prescribed set of techniques. The conventional methods of time management are not inherently better. They are ideal only for individuals to whom they are well-suited.

Procrastination. Students using unconventional strategies who postpone work may have valuable experiences and even learn things that improve their eventual output, while conventional students are busy doing the assignments and missing out on experiences (Lawrence, 1997). Moreover, some students need less time to do their best work (Myers, 1980). Procrastination has been defined as a "trait or behavioral disposition to postpone or delay performing a task or making decisions . . . independent of the appropriateness to a particular situation" (van Eerde, 2004, p. 29). Trait psychologists and others utilizing the Big Five model of personality identify Conscientiousness, one of the five scales, as negatively related to procrastination (Pychyl & Binder, 2004). Conscientiousness has also been positively related to the Myers-Briggs Judging preference and negatively related to the Myers-Briggs Perceiving preference (McCrae & Costa, 1989). In trait psychology, the Perceiving tendency toward *waiting to start* can be confounded with very negative characteristics (Schouwenburg, 2004). There is an assumption that starting work sooner—versus *waiting to start*, which is often identified as procrastination—is the favored if not sole path to higher academic achievement.

A Problem Worth Studying

Many successful Perceiving individuals have patterns of behavior not yet described in research literature. Their approaches, though unconventional, are rational and functional. While Perceiving students' routines may include (a) postponing homework and projects, (b) foregoing the use of planners or calendars, and (c) writing papers just in time for class, their academic standing is often good. Despite their success, many students with a preference for Perceiving describe themselves to this researcher with the following words: procrastinator, bad, lazy, disorganized, messy, late. They apologize for not following time management principles promoted as desirable. The strategies recommended in traditional

college student success materials are primarily oriented toward techniques that fit Judging behavior patterns—tight schedules, specific plans, multiple reviews and revisions, a place for everything and everything in its place, work first and play later (Fairhurst & Fairhurst, 1995; Lawrence, 1997). Although psychological type theory explains and honors Perceiving ways of doing things (flexible goals, fluid timeframes, pressure-prompted synthesis[2]), providing information and teaching about type-related differences may not be enough to correct a negative self-image if a Judging approach to academics is exclusively promoted as ideal.

This research investigated variations in conceptualization of time and space, to improve the educational process for Perceiving students and to promote understanding of Perceiving itself. Two of the study's research questions addressed actions and behavior patterns that were observable, reportable, and comparable:

1. How do Perceiving college students do their academic work?

2. How do the academic approaches of Perceiving students compare with conventional college success advice?

A third question, based on the researcher's hypothesis that successful Perceiving college students and others have good reasons for using time and space in unconventional ways, sought to identify the rationales for the students' reported approaches.

3. Why do Perceiving students do their academic work in these ways?

This line of questioning was undertaken to develop a grounded theory that would further illuminate the nature of Perceiving.

General Methods

The intent of the study was to develop a grounded theory by utilizing classic grounded theory methodology as originated by Glaser and Strauss (1967) and expanded by Glaser (1978, 1992, 2001). The goal of grounded theory research is the generation of "an abstract analytical schema" that explains a phenomenon occurring in a particular situation (Creswell, 1998, p. 56). In the situation, people act, interact, or engage in a process as they respond to the phenomenon. For this study the situation was college, the processes were learning and studying, and the phenomenon was Perceiving (extraverted Sensing or Intuition).

Grounded theory research methodology is well suited to inquiry into the scholarship of Perceiving college students, because it transcends simple description to systematically generate an explanation for research findings (Glaser, 1992; Strauss & Corbin, 1998). Grounded theory researchers draw their conclusions from data as they work to find "the set of relationships that account for important pieces of what they are seeing and hearing" (Miles & Huberman, 1994, p. 62). In the case of this study, grounded theory development was undertaken to explain why many successful students wait until the last minute to do an assignment, have desks piled high with stuff, and read text or write a paper only once.

PARTICIPANTS AND SELECTION

The 19 study participants included three 3rd-year students (juniors), nine 4th-year students (seniors), and seven recent graduates of a small, independent, liberal arts university. Invitations to participate in the study were sent only to academically successful students. For the purposes of this study, academically successful was defined as being in good standing (cumulative grade point average of at least 2.0 on a four-point scale) and making normal progress toward a degree (30 semester units per year). The students' grade point averages (GPAs) at the times of their interviews ranged from 2.3 to 3.9 on a four-point scale, with mean and median GPAs both 3.33.

Myers-Briggs Type Indicator® (MBTI®) Instrument. The MBTI instrument (Form M, Myers, McCaulley, Quenk, & Hammer, 1998) was administered to all entering students during orientation at the university for several years. The students received type education and interpretation of results from the researcher during their first semester and endorsed best-fit types. These verified types were used as participant selection criteria for this study. The students reconfirmed their types during the invitation process. Only Perceiving students were invited to participate, and all who responded were included in the sample. The participants represented the eight Perceiving types with two students each for ISTP, INFP, INTP, ESTP, and ENTP and three each for ISFP, ESFP, and ENFP. Eight of the participant students were female (42%), and all eight self-identified as Feeling types (ISFP, INFP, ESFP, ENFP). Eleven participants were male (58%), with one self-identifying as INFP, two as ENFP, and the eight others self-identifying as Thinking types (ISTP, INTP, ESTP, ENTP).[3]

Data Collection and Analysis

Interviews. Each participant was interviewed once, with follow-up by e-mail if necessary for clarification. The audio-recorded interviews were approximately 90 minutes in length and followed a set of more than 40 standardized, open-ended questions combined with thematic prompts (Patton, 2002). Questions and prompts were designed to elicit (a) descriptions of behaviors, (b) explanations of reasoning behind those behaviors, (c) feelings about academic performance and competence, and (d) reflections on educational experiences. In accordance with grounded theory methodology, the questions were modified as the theory developed in order to illuminate existing concepts or add new ones (Glaser, 1978).

Constant comparative analysis. Comparative analysis is a general method of logical comparison, as are experimental and statistical methods (Glaser & Strauss, 1967). The goal of this rigorous data analysis process is to formulate a theory that arises not simply from the data but from ideas about the data (Glaser, 1978). Beginning with the first data collection, comparisons are made in a long series of "double-back steps" (Glaser, 1978, p. 16), beginning with an appraisal of reported actions, events, and experiences (incidents). From this assessment, descriptive and potentially explanatory concepts are posited. Next, incidents are re-evaluated in light of the emerging conceptual explanations. Concepts may be discarded or modified at any time. Finally, findings from other research studies are compared to incidents and concepts from the data (Glaser, 1992).

For example, one participant in this study reported that interruptions negatively affected her writing process. Similar statements from other students were then noted, and words and descriptions compared (incident to incident comparison). The theoretical concept encompassing this set of incidents, labeled *Continuity*, was then compared to descriptions of other events (comparison of concept to more incidents). The comparison of *Continuity* to additional theoretical concepts developed during data analysis confirmed they were indeed different from each other (comparison of concept to concept). Similar analysis continued without interruption throughout the study from interviews to transcript review to findings.

RESULTS—PERCEIVING AND ACADEMICS

The results for the research questions about Perceiving students' academic work habits have been combined in summary via a comparison of participant interview data with currently available college success and study skills textbooks.

1. How do Perceiving college students do their academic work?

2. How do the academic approaches of Perceiving students compare with conventional college success advice?

Salient characteristics of college success and study skills textbooks have been summarized to facilitate comparison with the Perceiving student participants' approaches to academic tasks.

Participants' Approaches Compared to Conventional Strategies

Individuals with a preference for employing an extraverted judging function typically rely on intensive decision making and preparation. They seek to influence outcomes as much as possible (Myers, 1980; Myers, McCaulley, Quenk, & Hammer, 1998). At the core of Judging is the issue of control—control of time, control of space, and control of self. In contrast, individuals with the Perceiving preference typically rely on incoming information and ongoing experiences. They seek to allow processes to unfold as much as possible (Myers, 1980; Myers, McCaulley, Quenk, & Hammer, 1998). At the core of Perceiving is a sense of freedom—freedom in time, freedom in space, and freedom for self. Currently available college success texts do not encourage students to value freedom. Instead, they seek to teach students how to maintain control.

One popular way to control time, space, and self is to decide on a goal and carry out the steps necessary to achieve it. The methods of goal setting and planning for academic success embodied in the college study skills texts, particularly those emphasizing self-management techniques, direct students to follow steps presented as the best way to create a predetermined outcome (Dembo & Seli, 2008; Ellis, 2009; Gardner, Jewler, & Barefoot, 2009; Holschuh & Nist, 2007; Santrock & Halonen, 2010; Van Blerkom, 2009). The goal is to earn good grades and thereby graduate from college.

Many of the academic success authors focus on exam scores and grades as proof of success. Relationships, interests, extracurricular experiences, and college student development in general, perhaps because they are less controllable than academic performance, are presented as secondary or even optional. Educational

responsibilities come first. Students are advised to take advantage of planned free time only after all work has been completed (Holschuh & Nist, 2007; Van Blerkom, 2009). The texts clearly enjoin students to work first and play later, a concept often associated with the preference for Judging.

Perhaps most influential in terms of students' self-esteem, many of the guidebooks for the academic ideal are critical of those who do things differently. The authors' unbending stance against working *all at once* and/or *at the last minute* means they cannot sanction a student's affinity for *waiting to start*. Some go so far as to imply that students who procrastinate do not belong in college (Gardner, Jewler, & Barefoot, 2009; Nist & Holschuh, 2002). Although the strategies promoted by the success and study skills texts are valuable and effective for some individuals, the findings of this study demonstrate that the Perceiving participants' achievements are a result of their own unconventional but congruent approaches to higher education.

Performing conventional academic tasks. The study yielded unexpected results about the ways in which participants did their reading, writing, note taking, and test preparation, and the ways in which they organized workspaces and materials.

Textbook reading. Most of the participants who were asked if they liked to read (15 of 16) said they liked reading, in general. However, 89% of the study sample (17 of 19) read only some of their textbook assignments or read none of them at all. Despite the success texts' assertions to the contrary (Dembo & Seli, 2008; Nist & Holschuh, 2002), this unconventional academic strategy did not preclude earning solid grades.

Academic writing. The participants' writing processes were strikingly divergent from convention. More than three-fourths of the students (79%) wrote their papers close to deadlines. More than two-thirds (68%) did little or no proofreading when they finished writing. According to the texts, earning good grades with these practices is highly unlikely (Gardner, Jewler, & Barefoot, 2009; Santrock & Halonen, 2010).

Note taking and test preparation. Taking notes was a regular habit for most of the participants. They reviewed their notes, but typically did so only once when an exam was imminent. One in three students took notes infrequently or not at all. Both approaches contradicted the experts' advice about the importance of thorough and repetitive review of class notes (Ellis, 2009; Piscitelli, 2009). In the texts, studying *all at once*

and *at the last minute* is "cramming" (Nist & Holschuh, 2002, p. 259), an unacceptable approach. Nevertheless, more than three fourths of the participants (79%) studied for tests only *at the last minute* and 89% reported they did well without much effort.

Workspace and course material organization. Eighty-three percent of the participants kept urgent or important things in sight or within reach. More than half (61%) did not need a clear workspace to study effectively. The texts, in contrast, promote neat and organized spaces and filing things away to limit chaos and stress (Piscitelli, 2009).

Studying and meeting standards. Participants exerted their autonomy in several academic areas, including study practices and choosing not to do work exactly as instructed.

Conditions for study, amount of study, and timing. When the participants selected places to study, 44% of them did not choose desks or straight-backed chairs. They preferred comfort and found it in a variety of locations. Contrary to the experts' prescription for two hours in study for each hour in class (Gardner, Jewler, & Barefoot, 2009), three out of four participants (74%) studied fewer than seven hours per week. The participants were also successful in college without heeding the texts' warnings about study session schedules (Dembo & Seli, 2008). They did not decide in advance precisely how long they would study or what they would study. In fact, three out of four students (74%) studied just before a deadline or did not study at all.

Meeting academic standards. In some academic success texts, goals center on the classic academic standards of exam scores and course grades (Nist & Holschuh, 2002). More than half of the participants (58%), however, frequently chose to disregard faculty or university standards as they followed their own paths to learning. They set and met their own standards. For some Perceiving students (16%), working for a grade impeded learning.

> The P way of studying . . . is a different way, but not better or worse. The research on type and learning does not show that Js learn more than Ps. But the research does suggest that the natural J drive toward closure gives Js an advantage in fitting their learning into the system that awards grades. (Lawrence, 1997, p. 27)

Making time and tasks manageable. The participants' use of time was one of the most striking findings of the study.

Time management. Time management is at the heart of much of the conventional academic ideal. Experts are convinced that success is possible only if students follow schedules and complete all work before spending much time on anything else (Santrock & Halonen, 2010; Van Blerkom, 2009). The participants were immersed in a wealth of college experiences while fulfilling their responsibilities, yet they too, were productive and successful. They used time well without managing it.

Review and revision. The texts universally promote reviews of all kinds of information, to be carried out anywhere at almost any time. "Flash cards . . . are portable, which gives you the flexibility to use them wherever you go" (Carter, Bishop, & Kravits, 2007, p. 193). Some of the recommended review schedules appear to leave little time for anything else. "Shortly after your study period, spend ten minutes reviewing. . . . Two hours later review again. Review once more before going to sleep. For the next three days, review these same concepts or terms daily" (Downing, 2008, p. 143). In contrast, for almost all of the participants (94%), *going back* to review, re-read, revise, or reorganize was deemed unnecessary if not counterproductive.

Efficient Work Processes

Analysis of the academic success books reveals two guiding principles in the authors' directives to students. With good intentions, many writers insist that (a) tasks should always be as small as possible and (b) work must never be done *at the last minute*, to prevent students from making what the authors view as serious mistakes (Carter, Bishop, & Kravits, 2007; Nist & Holschuh, 2002; Santrock & Halonen, 2010; Van Blerkom, 2009).

Dividing tasks. The drive toward smaller or fewer —breaking things up or eliminating some of them— could be termed *Reduction*. It is the Judging opposite of the Perceiving preference for *Augmentation* (addition or amplification of information, objects, and experiences). Throughout their texts, the academic success authors use words reflecting a reductionist orientation such as: bite-size, bits, blocks, break, chunks, divide, less, limit, parts, pieces, reduce, sections, separate, short, small, specific, and subgoals.

For individuals with a preference for Judging these words represent making academic work easier because the parts are more manageable than the whole. Tasks must be divided before work is begun and also in order

to finish. This explains the authors' apprehension about tackling an entire assignment. The idea of doing work *all at once*, when the task is big (unmanageable) instead of small (controllable), is roundly criticized in the success texts.

In contrast, all of the participants (100%) did tasks *all at once* whenever possible. More than half of the students (61%) found that breaking up their work processes could (a) decrease quality, (b) require more time than they thought necessary, and (c) reduce enjoyment. *All at once* may be connected to flow (or *continuity*), which has been called "one of the major emotional rewards of intellectual activity" (Martinez, 2010, p. 160).

Procrastination—unacceptable or indispensable? The second guiding principle of the texts is that work must never be done *at the last minute*. This mandate seems to arise from the authors' concern about being overwhelmed by *waiting to start* and facing a whole assignment. They write about the issue as if all students will find this situation difficult. The words used to describe the experience of doing something big, complex, large, long, or massive included terms such as: anxiety, chaos, crisis, daunting, impossibility, insurmountable, intimidating, looming, overwhelming, panic, stressful, terrible, unmanageable, and worry.

Procrastination and stress. In contrast, most participants (84%) avoided starting early. They typically *waited to start* a work process until they were ready to begin. This was preferable to scheduling their work efforts. Although most of the academic success experts identify this delay as procrastination, the participants' ways of using time were functional rather than dysfunctional. A few of the students occasionally overran deadlines and a few had experienced a negative consequence as a result of *waiting to start*, but procrastination did not stand in the way of their academic success. Three-fourths of the students (74%) were not stressed by deadlines, or they considered procrastination-related stress to be acceptable or energizing.

The appropriateness of procrastination. The academic success and study skills texts contain a variety of directives concerning procrastination and how to avoid it (Ellis, 2009; Gardner, Jewler, & Barefoot, 2009; Mundsack, Deese, & Deese, 2003; Nist & Holschuh, 2002). Unfortunately, the narratives frequently progress beyond the concept that procrastination is negative solely because it is stressful. They seem to suggest that students who *wait to start* (a) produce inferior academic

work, (b) have questionable characters and work ethics, and (c) jeopardize their prospects for graduate study and careers. While it is true that procrastination can have negative consequences, delaying the decision to act worked for the study group. They were experienced, confident, and successful in their use of time.

The right way. Much of the advice given to college students about ideal academic success and study skills, especially about how time is managed, is presented from an exclusionary standpoint. There is only one right way. This perspective may arise from an underestimation of the strengths of Perceiving students and the ways in which they use their time for learning, development, play, and work. One example of misinterpretation is confounding *waiting to start* and doing tasks *at the last minute* with the habits of missing deadlines, being late for class, and lack of skill in time estimation.

> You may have a problem with procrastination if you answer yes to any of the following questions: Do you delay starting assignments? Are you late handing in assignments? Do you tend to wait for the last minute to complete assignments? Are you often late for appointments? Do you often underestimate the amount of time needed to complete a task? (Dembo & Seli, 2008, p. 156)

In fact, the study participants who studied and wrote *all at once at the last minute* displayed ability and skill; they learned, got good grades, and earned college degrees. Unfortunately, 65% of the participants experienced a lack of support from faculty who did not appreciate the Perceiving students' approaches to their academic work. The self esteem of many participants (74%) remained unaffected by this disregard. Others (26%) were made to feel unwelcome in the academic environment.

DISCUSSION—PERCEIVING AND ACADEMICS

College students are often directed to workshops, courses, books, and materials on study skills, textbook reading, test preparation, time management, and organization. Most experts and authors in the field of college success and study skills promote strategies that, while excellent, appear to reflect a preference for Judging with an emphasis on structure, planning, decision making, and control. Furthermore, the experts and authors typically present their methods as an ideal system—the only right way to be a successful college student.

In contrast, the successful Perceiving college students who participated in this study said (a) textbook reading, note taking, and review are optional, (b) workspaces can be both unsystematic and useful, (c) efficient study can be concise and unscheduled, (d) writing and test preparation can be done well *at the last minute*, (e) work process can be proficiently completed *all at once*, (f) time left unmanaged can be productive and enjoyable, and (g) learning is worth more than a particular grade.

The conclusions of this study describe a way of doing academic work that is functional, logical, and effective. It has not previously been described as appropriate and valid, nor has it been explained in light of psychological type differences. For example, while competent students of all preferences may occasionally complete work *at the last minute*, this study sought to demonstrate that this way of working is natural to all Perceiving students and has value for their learning. Some Perceiving students may not learn to avoid missing deadlines, but most do.

According to the participants' reports, following the prescriptions of the academic success authors is not effective for Perceiving students. Many had tried to do things in a Judging way but could not sustain the practices for long. They said the strategies simply did not fit. More importantly, some Perceiving students feel inadequate when they find they cannot utilize these recommended techniques. A study skills text designed and written for both Perceiving and Judging preferences is needed, to allow students to select the strategies that work for them.

Finally, the successful Perceiving students in this study clearly disagree with college success and study skills experts about the process of procrastination. For the participants, letting what needs to be done wait for a while is energizing rather than harmful. Waiting so that everything can come together *all at once*, often close to the last minute, is not just the way most of the Perceiving students said they work best; it is the way they must work. The conventional sequence of starting early, dividing a task into parts, and repeatedly reviewing or revising severely restricts Perceiving students' processes of thought and action. As one participant said regarding the imposition of standardized protocols that don't fit or serve the student, "You might as well just put handcuffs on me—on both my arms and legs—and tell me to run across the campus. It's just not going to work" [Valerie, ENFP]. This imbalance of control and

freedom creates inequity. Faced with the gap between conventional academic success philosophy and the reality of the study participants' experiences, the challenge for educators will be to accept and value the unconventional academic practices that are Perceiving students' own ideal.

RESULTS—THEORY DEVELOPMENT

The final group of findings was drawn from the constant comparative analysis of the study, answering the third research question and creating new understanding of Perceiving.

3. Why do Perceiving students do their academic work in these ways?

Six theory elements were identified in the study data. *Momentum* represents the centrality of the use of time in the participants' academic lives. It is the "core category" or core dimension of the grounded theory developed in this study (Glaser, 1978, p. 93). *Momentum* permeates and informs the other theory elements. Definitions of each with exemplar quotes are presented here.

Momentum. A sense of intention and progress, activated and propelled by energy, which carries through to completion of a process of cognition or action. Its antithesis, *going back*, is avoided, resisted, and may even be perceived as impossible.

> "If I've already read [something] then usually I don't want to go back and read it again . . . . I hate it . . . . To me it's time consuming and redundant . . . it's bothersome. I already know it. I don't have to be taught it again." [Megan, INFP]

> "I've invested enough of myself and my time so that what I've written is typically very well written. And I don't want to do things twice. That's the last thing I want to do . . . . So what I write—I make sure of what I write." [Rico, ENTP]

Unconstrained time. The perception that time is (a) available rather than passing; (b) fluid, not fixed; and (c) useable, not manageable. As the quantity of time decreases, the rate of thought and action increases.

> "I definitely know that, for me, the more stuff I have going on the better I do. Like during soccer season—when I'd have classes and I'd have a couple hours to get my homework done before I knew I was going to pass out, I did better than when I had nothing else going on. When I was really busy I knew I had to finish it because I had no other time to do it. The time crunch." [Emma, ESFP]

Entirety. A pattern of cognition and action in which processes are (a) whole, not broken or in parts; (b) complete, not missing something or lacking in some way; and (c) cohesive, not compartmentalized or divided.

> "If I can, I like to do it *all at once*. Some things are so big that you kind of have to do them ahead of time. But I like to do it *all at once*. In a short period of time. Like a day or two." [Dax, ISTP]

> "I think it's nice to be able to go into [something] and really devote time to it. And then walk out and have it done and completed and be satisfied with the result. Rather than spending an hour here, an hour there, an hour here. It would take a long time for there to be gratification from that." [Truman, ENFP]

Continuity. A pattern of cognition and action in which processes have a flowing quality, and interruption of that flow is potentially destructive to both process and product.

> "With papers and things like that I need to do them *all at once*. I can't start them early [and resume at another time] because my thought process won't be there later. So it needs to be that way." [Sophia, ISFP]

> "I have to do everything *at once*, because if I split things up I forget." [Carly, ESFP]

Awareness. A pattern of interest and attention, employed cognitively and in relation to objects, which influences recall, intention, and use of time.

> "Anything that's going to be useful, I can't put it in any drawer or anything. I have to tack it to the wall . . . . I have to be able to see it or it's going to get lost." [Howard, INFP]

> "Essentially, anything I've recently used is on my desk. If it's something I know is more important than something else I'll leave it in my desk area." [Frank, ESTP]

Augmentation. A pattern of cognition and action characterized by the propensity for addition or amplification of information, objects, and experiences.

> "I always feel like you can never have enough pens. You can never have enough paper. And I open my drawer and think, 'Oh, my goodness!' I was cleaning out my dorm and I had probably about three packs of pens—never been opened . . . . I realized I had about 15 pens in my backpack." [Valerie, ENFP]

Table 1. Momentum

Topics	Summary of Findings
Getting Started/Motivation	12 of 17 used self-motivation strategies 7 of 17 had difficulty starting work
At the Last Minute	16 of 19 waited; avoided starting work early
All at Once	All 19 completed work all at one time
Don't Stop in the Middle	11 of 18 did not interrupt work processes
Not Going Back/Avoiding Repetition	17 of 18 disliked and/or had difficulty with going back, repetition

All six of the theory elements directly or indirectly influenced aspects of the participants' academic work—reading, writing, studying, doing homework, taking notes, and preparing for tests. The *Momentum* topics (**TABLE 1**) reflect a way of using time that is driven by forward movement and even affects the use of space.

DISCUSSION OF THEORY DEVELOPMENT—*MOMENTUM THEORY*

"The right time comes when one is ready." — C. G. Jung

The ancient Greeks recognized two forms of time in a balance of opposites. *Chronos* was sequential time. The word was used to signify time in general, the course of time, the passage of time, a section of time, and a limited time (Bromiley, 1985). Chronos, passing in an orderly sequence with sections and limits, could be termed Judging time. Its complement, *kairos*, was used to signify the right moment, a decisive moment, an opportunity, well-timed, and a time that was transitory or temporary (Bromiley, 1985). Kairos could be termed Perceiving time. Perceiving students *wait to start* until the right moment—a dangerously fleeting condition—and then act decisively before an opportunity is lost. Their efforts must be well-timed.

Chronos keeps time with the even, predictable rhythm of a ticking clock. Kairos, on the other hand, lives in the wave of *Momentum*. The wave swells, gathering strength, then crests into opportunity and decision. Kairos races toward an objective with speed that easily outstrips the measured tick-tick-tick of chronos. What happens when Perceiving students are pulled out of their building wave of energy and slowed into chronos? Do they naturally resist this interruption of

Momentum? Could this resistance be the source of their autonomy and self-determination?

Autonomy, Standards, and Momentum

In the words of one participant who expressed a key perspective, "It's almost like there's a time for everything, and once you're out of that time it's hard to get back into the mindset to do it—or for it to matter" [Will, INTP]. Many participants described a sense of stubbornness or defiance about their approaches and about meeting the expectations of others. If they were doing well on their own trajectories in time and then had to change direction or method to meet a professor's guidelines, what happened to their motivation, progress, and self-esteem?

For the study participants, following precise instructions from an authority figure often required some degree of compromise. Many of them seemed to feel they were giving in, or even giving up. It was more than just annoyance at not being allowed to do what they wanted, because they certainly understood that tasks are assigned and must be completed. They were resisting the demand to relinquish the gift of *Momentum*. Perhaps this is what happens when a person or system applies what are essentially Judging brakes. When a process is broken up or requires much repetition, energy dissipates. If chronos takes over, the freedom of the kairos *right moment* is lost. The task becomes work. It is no longer fun, engaging, or challenging, and may even become empty of purpose. If students need *momentum* to power through the actions required to reach their goals, what harm is done when we hold them back?

Certainly, at least some of the participants' unconventional academic approaches are also used by students who prefer Judging rather than Perceiving, and by students who have not been successful in higher education. Perceiving students with good GPAs are not the only ones who work close to deadlines or let papers pile up on their desks. However, the study findings of difference do have the power to correct assumptions and generalizations about a set of ideal methods for working and succeeding in academic environments. Our response to the promotion of conventional strategies must be, "Some very successful students do it another way."

LIMITATIONS

Grounded theory studies seek to explain the reasons behind what is observed. They are typically small in scale and, though empirical in that they are evidence-based, cannot be mathematically generalized to larger populations. However, the findings and conclusions of this study are transferable. They apply to at least some Perceiving individuals.

The student participants in this study were juniors, seniors, and recent graduates selected because they had a track record of college success. Additionally, Perceiving students could choose whether or not to participate in the research. Thus, the conclusions of this study may apply only to Perceiving college students who have persisted to at least the third year and/or who are willing to participate in an interview about their study habits. The participants may be individuals with a Perceiving preference who were successful in spite of their unconventional strategies, perhaps as a result of factors yet to be determined.

Therefore, although this study identified and explained academic habits beneficial for at least some Perceiving students, others, such as those excluded in the present study's sample, might in fact benefit from the Judging-appropriate strategies recommended in current college success and study skills texts. Likewise, some students with a preference for Judging may gain from Perceiving strategies such as increased flexibility in time schedules or the postponement of decisions to accommodate discovery and further learning.

These topics warrant further study. Additionally, more research is needed on the nature of Perceiving itself, including exploration of differences between Sensing (SP) and Intuition (NP).

CONCLUSIONS

The hallmark of the preference for Judging is the extraversion of an individual's Judgment function (Thinking or Feeling), with decision making oriented to the outer world of objects, persons, and events. Similarly, the conventional measures of academic efforts, and even of learning itself, are external. Students who pore over textbooks, notes, projects, and papers for hours each day demonstrate effort and produce tangible work products. When these students complete their assignments and exams and earn good grades, observers may be convinced that the students are engaged in learning.

The hallmark of the preference for Perceiving is the extraversion of an individual's Perception function (Sensing or Intuition). Judgment and decision making, therefore, are oriented to the inner world of value, truth, and authenticity. What if some students learn but (a) are not able, (b) do not decide, or (c) do not choose to fully display their learning in conventional external ways? Some students risk making unconventional decisions about how much time to spend on study or academic performance. This may lead to disapproval from others who rely on observable, external proof of effort. The study participants' use of introverted judgment processes created a drive for autonomy, a powerful source of internal control, and an integrated approach to learning that at times appeared effortless.

If some students spend less time on study or writing, without intensive repetition and review, does this invalidate their learning? Perhaps these students have incorporated information and knowledge into their lives in a manner that fits for them. They earn good grades, persist to graduation, and are satisfied with their distinctive educational experiences. Isn't this autonomous way of learning a richer and longer-lasting form of success than academic achievement through (a) following every instruction, (b) foregoing opportunities for personal development in favor of study, and (c) painstakingly fulfilling the expectations of others? The answers are in the participants' narratives about their educational experiences.

SUMMARY

The data and theory of this study demonstrate that if the most comfortable, natural, and historically effective way for a learner to do an assignment is as a whole, in a complete and cohesive way, then a stretch of time is needed [*Entirety, Continuity*]. If the student also has a sense that there is plenty of time, then current or pres-

ent time need not be used for the task and it can be postponed [*Unconstrained Time*]. Waiting while energy builds [*Momentum*] is especially appropriate at college, where a variety of interesting, educational, and enjoyable experiences are readily available [*Augmentation*]. When the assignment deadline nears, it swells into *Awareness* with intensity and immediacy. Finally, the time is right [*Momentum*]. The student works on the task, completes it, once again produces a high quality product, and learns.

Human learning is as individual as human fingerprints (Dryden & Vos, 2005). Teaching students that one set of established learning strategies is ideal impedes adaptation, creativity, and invention. Instead, we should provide our educated citizens of the future with opportunities to develop their own strengths and fulfill their remarkable potential. Successful Perceiving college students, and many other students, learn by using methods we did not expect or design. Nevertheless, their education is valid, significant, and worthwhile. Unconventional strategies are effective. For at least some Perceiving students, they are essential.

NOTES

[1] This coordinated surge in activity does not happen at just any point the way inspiration can strike. It can happen only when time has funneled down, narrowing to provide a unique sense of pressure. It also works best when the entire creation occurs in a short and unbroken span of time. This is different from inspiration.

[2] Synthesis signifies the coming together of parts into a meaningful whole. The parts can be anything—ideas, images, words, objects, sounds—sensory and conceptual information, concrete or abstract. Study findings indicate that this process takes place in Perceiving individuals regardless of preference for Sensing or Intuition. *Pressure-prompted* has been eloquently described as a facet of Perceiving on the MBTI Step II Instrument (Quenk, Hammer, & Majors, 2001).

[3] Because the researcher chose to interview only juniors, seniors, or recently graduated Perceiving students who were meeting academic standards of success, Perceiving students with lower GPAs, or who were behind in their academic progress, or who dropped out of college are not represented in this study. In addition, academically successful Perceiving students who did not respond to the researcher's invitation may differ from the participants in some way.

REFERENCES

Bromiley, G. W. (1985). Kairos. In G. Kittel & G. Friedrich (Eds.), *Theological dictionary of the New Testament*. Grand Rapids, MI: Eerdmans Publishing.

Carter, C., Bishop, J., & Kravits, S. L. (2007). *Keys to effective learning: Developing powerful habits of mind* (5th ed.). Upper Saddle River, NJ: Pearson.

Creswell, J. W. (1998). *Qualitative inquiry and research design: Choosing among the five traditions*. Thousand Oaks, CA: Sage.

Demarest, L. (2001). *Out of time: How the sixteen types manage their time and work*. Gainesville, FL: Center for Applications of Psychological Type.

Dembo, M. H., & Seli, H. (2008). *Motivation and learning strategies for college success: A self-management approach* (3rd ed.). New York: Lawrence Erlbaum.

DiTiberio, J. K. (1996). Education, learning styles, and cognitive styles. In A. L. Hammer (Ed.), *MBTI applications: A decade of research on the Myers-Briggs Type Indicator* (pp. 123–166). Palo Alto, CA: Consulting Psychologists Press.

DiTiberio, J. K., & Hammer, A. L. (1993). *Introduction to type in college*. Palo Alto, CA: Consulting Psychologists Press.

DiTiberio, J. K., & Jensen, G. H. (1995). *Writing and personality: Finding your voice, your style, your way*. Palo Alto, CA: Davies-Black.

Downing, S. (2008). *On course: Strategies for creating success in college and in life* (5th ed.). Boston: Houghton Mifflin.

Dryden, G., & Vos, J. (2005). *The new learning revolution: How Britain can lead the world in learning, education, and schooling*. Stafford, U.K.: Network Educational Press.

Dunn, R., & Dunn, K. (1978). *Teaching students through their individual learning styles: A practical approach*. Festoon, VA: Prentice-Hall.

Ellis, D. (2009). *Becoming a master student* (12th ed.). Boston: Houghton Mifflin.

Fairhurst, A. M., & Fairhurst, L. L. (1995). *Effective teaching, effective learning: Making the personality connection in your classroom*. Palo Alto, CA: Davies-Black.

Fitzsimmons, S. (1999). *Type and time management*. Edmonton, AB, Canada: Psychometrics Canada.

Francis, S. (2000). Learning and teaching experiences of Sensory Perceptive teachers: Artisans in action. (Doctoral dissertation, University of Idaho, 1999). *Dissertation Abstracts International, 60*, 2868A. (UMI No. AAI9944205)

Gardner, H. (1993). *Multiple intelligences: The theory in practice*. New York: BasicBooks.

Gardner, J. N., Jewler, A. J., & Barefoot, B. O. (2009). *Your college experience: Strategies for success* (8th ed.). Boston: Wadsworth Cengage Learning.

Glaser, B. G. (1978). *Theoretical sensitivity*. Mill Valley, CA: Sociology Press.

Glaser, B. G. (1992). *Basics of grounded theory analysis*. Mill Valley, CA: Sociology Press.

Glaser, B. G. (2001). *Conceptualization contrasted with description*. Mill Valley, CA: Sociology Press.

Glaser, B. G., & Strauss, A. L. (1967). *The discovery of grounded theory: Strategies for qualitative research*. Mill Valley, CA: Sociology Press.

Hammer, A. L. (Ed.). (1996). *MBTI applications: A decade of research on the Myers-Briggs Type Indicator*. Palo Alto, CA: Consulting Psychologists Press.

Holschuh, J. P., & Nist, S. L. (2007). *Effective college learning*. New York: Pearson.

Jensen, G. H. (2003). Learning styles. In J. A. Provost & S. Anchors (Eds.), *Using the MBTI instrument in colleges and universities* (2nd ed., pp. 123–155). Gainesville, FL: Center for Applications of Psychological Type.

Jung, C. G. (1971). *Psychological types*. (H. G. Baynes translation revised by R. F. C. Hull). Princeton, NJ: Princeton University Press.

Kahn, J. H., Nauta, M. M., Gailbreath, R. D., Tipps, J., & Chartrand, J. M. (2002). The utility of career and personality assessment in predicting academic progress. *Journal of Career Assessment, 10*(1), 3–23.

Keirsey, D., & Bates, M. (1984). *Please understand me: Character & temperament types*. Del Mar, CA: Prometheus Nemesis.

Lawrence, G. (1997). *Looking at type and learning styles*. Gainesville, FL: Center for Applications of Psychological Type.

Macdaid, G. P. (2003). Research approaches using the MBTI instrument. In J. A. Provost & S. Anchors (Eds.), *Using the MBTI instrument in colleges and universities* (2nd ed., pp. 405–438). Gainesville, FL: Center for Applications of Psychological Type.

Mamchur, C. (1996). *A teacher's guide to cognitive type theory and learning style*. Alexandria, VA: Association for Supervision and Curriculum Development.

Martinez, M. E. (2010). *Learning and cognition: The design of the mind*. Upper Saddle River, NJ: Merrill.

McCrae, R. R., & Costa, P. T. (1989). Reinterpreting the Myers-Briggs Type Indicator from the perspective of the five-factor model of personality. *Journal of Personality, 57*(1), 17–40.

Meisgeier, C., & Meisgeier, C. S. (2000). Behavior management, individual differences, and psychological type. In J. Reid, M. Fields, & S. Hencin (Eds.), *Center for Applications of Psychological Type Education Conference: The role of type in education* (pp. 225–234). Gainesville, FL: Center for Applications of Psychological Type.

Miles, M. B., & Huberman, A. M. (1994). *Qualitative data analysis: An expanded sourcebook* (2nd ed.). Thousand Oaks, CA: Sage.

Mundsack, A., Deese, J., & Deese, E. K. (2003). *How to study and other skills for success in college* (5th ed.). New York: McGraw-Hill.

Myers, I. B. (1980). *Gifts differing*. Palo Alto, CA: Consulting Psychologists Press.

Myers, I. B., McCaulley, M. H., Quenk, N. L., & Hammer, A. L. (1998). *MBTI manual: A guide to the development and use of the Myers-Briggs Type Indicator* (3rd ed.). Palo Alto, CA: Consulting Psychologists Press.

Nist, S., & Holschuh, J. P. (2002). *College rules! How to study, survive, and succeed in college*. Berkeley, CA: Ten Speed Press.

Patton, M. Q. (2002). *Qualitative research and evaluation methods* (3rd ed.). Thousand Oaks, CA: Sage.

Piscitelli, S. (2009). *Study skills: Do I really need this stuff* (2nd ed.). Upper Saddle River, NJ: Pearson.

Provost, J. A. (1999). *Strategies for success: Using type to excel in high school and college*. Gainesville, FL: Center for Applications of Psychological Type.

Pychyl, T. A., & Binder, K. (2004). A project-analytic perspective on academic procrastination and intervention. In H. C. Schouwenburg, C. H. Lay, T. A. Pychyl, & J. R. Ferrari (Eds.), *Counseling the procrastinator in academic settings* (pp. 149–165). Washington, DC: American Psychological Association.

Quenk, N. L., Hammer, A. L., & Majors, M. S. (2001). *MBTI Step II manual: Exploring the next level of type with the Myers-Briggs Type Indicator Form Q*. Palo Alto, CA: Consulting Psychologists Press.

Santrock, J. W., & Halonen, J. S. (2010). *Your guide to college success: Strategies for achieving your goals* (6th ed.). Boston: Wadsworth Cengage Learning.

Schaefer, G. L. (1994). Relationships of Myers-Briggs Type Indicator personality type profiles to academic self-esteem. (Doctoral dissertation, University of the Pacific, 1994). *Dissertation Abstracts International, 55*, 1228A.

Schouwenburg, H. C. (2004). Procrastination in academic settings: General introduction. In H. C. Schouwenburg, C. H. Lay, T. A. Pychyl, & J. R. Ferrari (Eds.), *Counseling the procrastinator in academic settings* (pp. 3–17). Washington, DC: American Psychological Association.

Schurr, K. T., Ruble, V., Palomba, C., & Pickerill, B. (1997). Relationships between the MBTI and selected aspects of Tinto's model for college attrition. *Journal of Psychological Type, 40*, 31–42.

Sears, S. J., Kennedy, J. J., & Kaye, G. L. (1997). Myers-Briggs personality profiles of prospective educators. *Journal of Educational Research, 90*(4), 195–202.

Strauss, A. L., & Corbin, J. (1998). *Basics of qualitative research: Techniques and procedures for developing grounded theory* (2nd ed.). Thousand Oaks, CA: Sage.

Van Blerkom, D. L. (2009). *College study skills: Becoming a strategic learner* (6th ed.). Boston: Wadsworth Cengage Learning.

van Eerde, W. (2004). Procrastination in academic settings and the Big Five model of personality: A meta-analysis. In H. C. Schouwenburg, C. H. Lay, T. A. Pychyl, & J. R. Ferrari (Eds.), *Counseling the procrastinator in academic settings* (pp. 29–40). Washington, DC: American Psychological Association.

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