

# Visualizing Academic Advising in a Learning Styles Context: A Pyramid Approach

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## Abstract

*Although educators are recognizing that academic advising is a crucial component in promoting students' academic success and personal development, the relationship between individuals' learning styles and advising has not been explored. Nevertheless, a) attention to learning style produces measurable improvement in learning and satisfaction; b) advising sessions are learning opportunities; c) although learning styles are fairly evenly distributed among college students, traditional advising methods accentuate the feeling and thinking styles; d) Leisure Science students favor the doing and visual learning styles over both the feeling and thinking styles; and e) students consistently have expressed general dissatisfaction with the advising process. To accommodate visually inclined students – especially in the absence of doing oriented methods – advisors can supplement traditional verbal exchanges and published text-based course descriptions with visually oriented materials. Results of a prior implementation and a more current survey revealed sustained student interest in an advising pyramid that graphically organizes Leisure Science curricula within a pyramidal structure.*

**Keywords:** cognitive style, counseling, curriculum design

## Introduction

Because 65% of four-year public institutions and 92% of four-year private institutions of higher education require students to contact faculty advisors prior to class scheduling or registration (e.g., Hiram College, 2001, p. 20), approximately 80% of all college and university students visit their advisors at least once every academic year (Habley & Morales, 1998). Not surprisingly, then, detailed announcements of full-time, tenure-track faculty position searches often will include generic phrases such as “will assist with academic advising” (Ithaca College, 2002) or “act as academic advisor” (Internet Employment Linkage, Inc., 2002).

Testimonials to the value of good advising abound (Evelyn, 2002; Light, 2001; Nutt, 2000; Strage, et al., 2002), and many postsecondary institutions trumpet their commitment to quality academic advising (e.g., Kent State University, 2002, p. 68). However, only 23% of all four-year colleges and universities require faculty advisor training (Habley & Morales, 1998). Others are downgrading or outsourcing academic advising functions (Evelyn, 2002), even in the face of evidence that, “Next to limited

parking and food in the residence hall that doesn't compare to home cooking, academic advising has been on the top ten list of student concerns for many years" (Hanson & Huston, 1995, p. 95).

Higher education in general, and Leisure Science in particular (Rothschadl & Russell, 1992; Russell & Rothschild, 1991; Szucs, Hawdon, & McGuire, 2001), has begun to embrace the learning style concept. Yet, despite the growing emphasis on student retention and satisfaction, the application of learning style to academic advising both within and outside of Leisure Science has been almost non-existent (ERIC, 2003; OCLC, 2003). Advising involves learning, and if "Leisure Science teaching could benefit from Kolb's [1984] model of learning [style]" (Szucs, Hawdon, & McGuire, 2001, p. 27), then its academic advising could profit from approaches which are learning style-appropriate. The advising pyramid presented herein organizes Leisure Science curricula within a format conducive to acquiring information visually.

### *Learning Style, and its Relevance to Academic Advising*

Whether advising is considered prescriptive (the "procedural" *which* courses, in what sequence), or developmental (the "teaching" of *why* courses are useful and *how* they foster students' growth), students are learning: about course content, sequence, and how the classes interconnect with their lives and future careers (Alexitich, 2002; Hemwall & Trachte, 1999; Kadar, 2001; Reinartz & White, 1995). Advising may give the superficial appearance of being an uncomplicated, straightforward activity, but the quality and efficacy of any teaching and learning exchange is influenced by the ways in which the information is perceived and processed by the participants (Alexitich, 2002; Duller, Creamer & Creamer, 1997; Dunn & Dunn, 1993; Dunn & Griggs, 1995; Entwistle, 2001; Guild & Garger, 1998; Hemwall & Trachte, 1999; McCarthy, 2000).

Learning style has been described as "the way in which each person begins to concentrate on, process, and retain new and difficult information" (Dunn & Griggs, 1995, p. 14), which, in turn, "governs how we think, make judgments, and form values about experiences and people" (Guild & Garger, 1998, p. 23). Rooted in Greek Naturalism (Mechikoff & Estes, 2002) and traced to the present day through Gnosticism, Jung, and Kolb (Kolb, 1984), nearly innumerable schemes have been developed to describe learning style (e.g., Dunn & Dunn, 1993; Entwistle, 2001; Fleming & Mills, 1992; Kolb, 1984; Long, 1992; McCarthy, 1996; McCarthy, 2000). More recently, Szucs, Hawdon, and McGuire's (2001) study presented an extensive bibliography of learning style instruments and theories.

Guild & Garger (1998) summarized seven learning style systems and have identified four style aspects: cognition, conceptualization, affect, and behavior. Generally, some people comprehend by reading textual materials (analytical or "thinking" style), while others conceptualize information through charts, diagrams, and graphic representations (visual or "observing" style). Some rely on verbal and non-verbal communication methods common to lecturing and conversation (auditory or "listening/feeling" style), and others

require an association with physical activity (kinesthetic or “doing” style). During the past 80 years, the learning style concept has become an accepted framework within which methods for examining this variability have been formulated, researched, and refined (Guild & Garger, 1998).

In an academic setting, identifying and working in harmony with students’ learning styles have been associated with productive outcomes, such as students’ persistence in college, development of academic skills, career decisions and educational aspirations, and satisfaction with their college experience (Alexitich, 2002; Brown & Sandstead, 1982; Light, 2001; Nutt, 2000; Strage, et al., 2002). Recognizing this connection, many colleges and universities now require incoming students to attend orientation classes which may include a discussion of the importance of learning style derived from a chapter in the course’s textbook (e.g., Gardner & Jewler, 2001).

All of these issues, above, are and have been legitimate topics within academic advising. Researchers have concluded that:

1. Most individuals can learn.
2. Instructional environments, resources, and approaches [of which advising is one] respond to diversified learning style strengths.
3. Everyone has strengths, but different people have different strengths.
4. Individual instructional preferences exist and can be measured.
5. Given responsive environments, resources, and approaches, students attain statistically higher achievement and attitude test scores in matched, rather than mismatched treatments.
6. Most teachers [and advisors] can learn to use learning styles as a cornerstone of their instruction [and advising] (Dunn & Dunn 1993, p. 6).

### *Learning Style Deficiencies in Academic Advising Approaches*

Essential to achievement in higher education, signified by the eventual attainment of a degree, is each student’s orderly matriculation through a specified curriculum. Fundamental to that undertaking, particularly for students, is timely and meaningful advising (Light 2001; Nutt, 2000; Yarbrough, 2002).

But academic advising sometimes has been a haphazard, nebulous, and ineffectual process (Berdahl, 1995; Crockett, 1982; Habley & Morales, 1998; Kadar, 2001; Noble, 1988). One large-scale survey revealed that, “less than 50% of the [approximately 30,000] students said they were satisfied with any particular advising topic” (Hanson & Huston, 1995, p. 93). An earlier sample of nearly 20,000 students rated the degree to which

advising met their needs at 3.31 on a scale ranging from a low of 1 to a high of 5 (Habley & Crockett, 1988), a "C+" grade that did not change dramatically ten years later (Habley & Morales, 1998).

"The notion that all students' cognitive skills are identical at the collegiate level smacks of arrogance and elitism" by favoring one learning style to the detriment of others (Anderson & Adams, 1992, p. 19). Verbal and textual advising formats have been commonplace, but what about graphical forms? The distribution of learning styles among members of several different samples does not support such a disparate emphasis on the first two formats. Researchers utilizing McCarthy's 4MAT-oriented Learning Type Measure instrument (McCarthy, M., personal communication, March 14, 2002) report that 1513 educators were arrayed as follows:

Type 1 Learner: 331 people (21.9%) experiential/concrete/feeling

Type 2 Learner: 491 people (32.5%) analytical/reflective/seeing

Type 3 Learner: 281 people (18.6%) cognitive/abstract/thinking

Type 4 Learner: 410 people (27.1%) kinesthetic/active/doing

Their distribution illuminates the present issue's depth; by favoring Types 1 and 3, traditional advising methods account for less than half (40.5%) of the individuals sampled. College-aged respondents taking the Learning Styles Inventory were even more equally distributed (O'Shea, M., personal communication, August 31, 2000). In addition, the one-way ANOVA mean sums statistics reported in a recent study involving Leisure Science students indicates a collective tendency toward exhibiting the "doing" learning style derived from Kolb's model, with fewest displaying the "feeling" learning style (Szucs, Hawdon & McGuire, 2001, p. 21).

Fruitful advising sessions should require the advisor "learning as much as possible about the student" (Nutt, 2000, p. 224). However, advisee learning style was not mentioned among Nutt's (2000) potential sources of that information, a condition replicated in Petress' (2000) counsel on "how to be a good advisee" (p. 598). Upcraft and Stephens (2000) listed nine variable student characteristics – from race to internationality – but learning style was not one of them, and then contradicted themselves by asserting that, "It is especially important to profile students' academic skills and deficiencies" (p. 80). Similarly, Ender and Wilkie (2000) defined five populations of students with special needs, none of which was identified on the basis of learning style. Yarbrough (2002) briefly acknowledged the existence of learning style in his elaborate advising model, but relegated its influence to students enrolling in upper division courses. Finally, an electronic database search of the phrase "learning style [and] academic advising" in journal article or book titles uncovered no sources (ERIC, 2003; OCLC, 2003): only a single conference paper expressly addressed learning style in a postsecondary academic advising context (Nisbet, 1981).

Student disaffection toward academic advising is influenced by the interplay between faculty and student learning styles, and by the degree of familiarity with and proper use of learning style sensitive tools and methods. Dunn and Griggs (1995) observed that, "Counselee [advisee] resistance is partially due to the mismatch between counseling interventions, strategies, and techniques used by the counselor [advisor] and the learning-style preference of the counselee" (p. 29). Anderson and Adams (1992) concurred, positing that, "One of the most significant challenges that university [faculty] face is to be tolerant and perceptive enough to recognize learning differences among their students" (p. 19).

Faculty members bring their own set of personal preferences, strengths, and weaknesses to both teaching and advising (Crockett, 1982; Duller, Creamer & Creamer, 1997; Petress, 2000). Being cognizant of these characteristics – and judiciously employing appropriate learning style tools and methods by both faculty and students during advising sessions (Szucs, Hawdon & McGuire, 2001) – may contribute to overall student success (Dunn & Dunn, 1993; McCarthy, 1996; McCarthy, 2000; Petress, 2000). As Guild and Garger (1998) have asserted, "Style traits are easier to recognize in others if we personally understand those characteristics" (p. 26).

As long as 20 years ago, however, Crockett (1982) cited a "lack of [faculty] training in the skills and techniques necessary for effective advising," including, presumably, the accommodation of learning style (pp. 43-44). Nonetheless, the most recent report from NACADA/ACT found that less than 25% of all postsecondary institution departments required formal advisor training, and barely one-third (34.8%) actually provided training support (Habley & Morales, 1998). Kadar (2001) echoed the sentiment that faculty members are not trained holistically, while Yarbrough (2002) has asserted that academic advising has become an increasingly unpopular task among faculty.

Further, a "strained" relationship between professional academic advisors and faculty has resulted in faculty resistance to "participat[ion] in workshops and conferences about academic advising" (Hemwall & Trachte, 1999, p. 7). Moreover, a 1989 national survey of faculty sponsored by the Carnegie Foundation for the Advancement of Teaching found that "71% of the respondents from four-year institutions indicated that academic advisement was 'fairly unimportant' or 'very unimportant' for tenure considerations in their departments" (Berdahl, 1995, p. 4). The NACADA/ACT survey reinforced those findings, revealing that, "fewer than one in three (31%) campuses recognize, reward, or compensate faculty for academic advising" (Habley & Morales, 1998, p. 31).

These statements suggest that faculty may not have had either the opportunity or motivation to become sensitive to learning style differences, and that academic advising has lost much of its utility for students and its vitality as a developmental advising teaching tool for many professors (Reinarz & White, 1995; Yarbrough, 2002). Despite these encumbrances, the critical fact remains that, "accommodating individual learning style preference through complementary educational, instructional, teaching, and *counseling*

[emphasis added] interventions results in increased academic achievement and improved student attitudes toward learning” (Dunn & Griggs, 1995, p. 16). In contrast, ignorance of or disregard for these differences has been blamed for students’ developing poor self esteem and even dropping-out of school (Alexitich, 2002; Dunn & Griggs, 1995; Guild & Garger, 1998; Nilson, 1998).

### *Reconciling Academic Advising and Learning Style*

Having established academic advising as a key component of contemporary models of higher education, expanding the advising process to account for learning style would seem crucial to students’ success. As Grites (1982) noted nearly a generation ago, “No one delivery system or single set of skills can be expected to meet the advising needs of all students in our institutions” (p. 67), a proposition more recently reiterated by Hemwall and Trachte (1999).

Because research has indicated that students can and do learn by employing more than one learning style, or vary their degree of engagement with each learning environment according to the teaching method being used, a multi-sensory (Nilson, 1998) or “blended learning” (Rossett, 2002) approach could be appropriate. Highlighting this contention is the Information Age migration from textual to graphical – beginning with the inclusion of more and more pictures and graphics in newspapers through movies and television (Lukacs, 2002) to the present web sites and video games (Gee, 2003) – all of which increasingly favors the visual learning style. The implication for academic advising at all levels involves reformulating traditional advising aids to include a variety of formats.

Often, curriculum information is delivered verbally by advisors or distributed to students in the form of text-based printed materials such as annual catalogs and periodical schedule booklets, and increasingly, in electronic reproductions of such texts on web sites and CD-ROMs (Kent State University, 2003; Sotto, 2000; Steele, Leonard, Haberle & Lipschultz, 1999). From a learning style perspective, the commonality among these formats is that they are more attuned to students who process information audibly (listening/feeling) or cognitively (thinking), and to faculty who exhibit a “scheduler” (prescriptive) student advising style (Duller, Creamer & Creamer, 1997). However, “students who rely more [on visual, and kinesthetic] styles face difficulties” in typical college situations (Nilson, 1998, p. 65). This should concern students, and their advisors, whose learning styles are incompatible with advising formats. What the traditional curriculum presentations are lacking is an easily discernable “diagram” of the coursework that would enable students to literally “visualize” their paths toward graduation.

### *The Advising Pyramid*

A pyramidal structure (See Figure 1) could be helpful not only as an important graphical advising tool, but also, perhaps, as an inspiration (Hancock & Bauval, 1996). More practically, the pyramid form has become familiar as an organizing technique for promoting programs such as good nutrition (United States Department of Agriculture,

2002), and physical activity (HealthSource, 2002) in both printed poster format and electronic web site configuration.

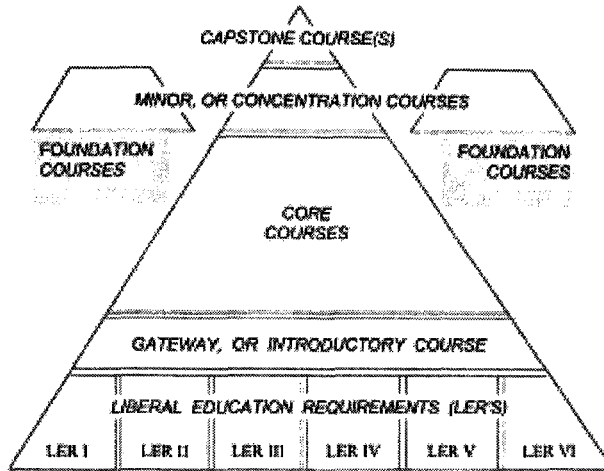


Figure 1. The generalized academic advising pyramid, depicting the sequential curricular levels comprising one major area of study.

The advising pyramid's five principal levels mirror the traditional ordering of most curricula, from general to specific. Since the great majority of academic institutions are grounded in, or derived from, the liberal arts, the pyramid's base level encompasses that collection of courses deemed integral for all students: those classes often referred to by phrases such as "liberal education requirements" (LERs) or "general education requirements" (GERs). Each college or university defines and categorizes this set of courses in its own way (e.g., Fine Arts, Basic Sciences, Humanities, etc.), and that scheme should be reflected in any subdivision of the base/LER level. It is here that the advisee and advisor will look first.

The second tier fills an exclusive and pivotal role as the "gateway" or introductory course that every student intending to pursue a particular discipline must take prior to enrolling in any other of a department's courses (e.g., *Introduction to Leisure and Recreation*). This level extends the full width of the pyramid's face, visually demarcating the transition.

Built upon the gateway level is the "core" level, which includes the required courses common to all students within a department, regardless of the individual minor or concentration they may pursue. This level occupies the large center of the pyramid,

within which each course number and title is listed – along with any prerequisites – in ascending sequential order. Arranged in this manner, the eye easily scans the menu, noting the logic of its seamless connections. Additionally, the core level occupies the greatest area – and middle – of the image space, reinforcing those courses' centrality to the department's educational mission.

Immediately above the core is the “minors, or concentrations” level. Many departments permit, encourage, or even require further specialization within a more inclusive departmental major, and these courses would be categorized and listed in a manner similar to (and compatible with) the previous levels. In this way, students can see how the base/LER, gateway, and core levels form the essential framework on which the minors or concentrations are constructed.

Adjacent to, and at the same level as the core is a second series of courses relating to the minors or concentrations. These can be considered “foundational” to those more focused areas of study, but should not be confused with the gateway level course. Within the context of the pyramid's design, these blocks of courses act as visual escorts to the minors and concentrations.

Topping the pyramid structure itself is the “capstone” level. Frequently, this portion of a student's program contains various senior seminars or internships: the intellectual and practical culmination of the student's educational journey. It is often a departmental policy that the capstone course(s) may not be taken until coursework within all other levels of the pyramid has been completed successfully, a prerequisite reinforced by the capstone's preeminent position.

Through viewing Figure 1, students and advisors can visually comprehend a department's curriculum structure and logic, and select the appropriate path. Beginning with the broad selection of liberal arts courses, the ascent negotiates the gateway to enter the core – flanked by the foundations – sequentially traversing the intellectual face of specialization (e.g., minors or concentrations), to reach the pinnacle course that summarizes, synthesizes, and brings meaningful closure to students' collegiate years.

### **An Initial Implementation, and a Preliminary Survey**

Initially, the advising pyramid was developed for a state university, school-level academic unit in response to the author's need to organize and become familiar with that unit's curriculum, which encompassed sport/recreation management, tourism, and therapeutic recreation. Intended to supplement an existing text-based booklet and course list, the advising pyramid was comprised of four facets: one unit-wide, and three that were concentration-specific. After several revisions incorporating suggestions from faculty and students, copies of the pyramid diagram were distributed to the over 100 students enrolled in the author's courses, to the author's advisees, and to the unit's seven faculty members, during the spring semester, 2001.



Reaction to the advising pyramid from students in the classrooms was positive – with some expressing unsolicited enthusiasm – declaring that at long last, they finally “saw” the logic behind the curriculum. Several of these students immediately requested additional copies of the diagram. This trend continued through the end of the school year, at a rate approaching 50%. The author’s advisees were even more receptive (nearly 100%), in part, perhaps, because the advising pyramid was utilized as intended: in concert with the aforementioned traditional methods. Acceptance among the unit’s faculty was less than 50%, reflecting, perhaps, some of the faculty advisor issues cited earlier in this manuscript (e.g. Anderson & Adams, 1992; Habley & Morales, 1998; Hemwall & Trachte, 1999; Kadar, 2001; Nutt, 2000; Yarbrough, 2002).

Following a two-year hiatus, results of an investigative survey of Leisure Studies students conducted in spring 2003 reaffirmed previous student interest, and echoed advising and learning style figures published in other sources. Eighty students enrolled in four separate courses were given a one-page instrument containing nine items, accompanied by a copy of the refined advising pyramid (Figure 2) developed from the initial implementation, above. After responding to questions establishing advising behavior, each student was asked to evaluate the advising pyramid on the basis of its visual appearance, content organization, emotional appeal, and its potential utility as an advising aid. The remaining items were devoted to ranking individual learning style preferences from among the four styles described previously.

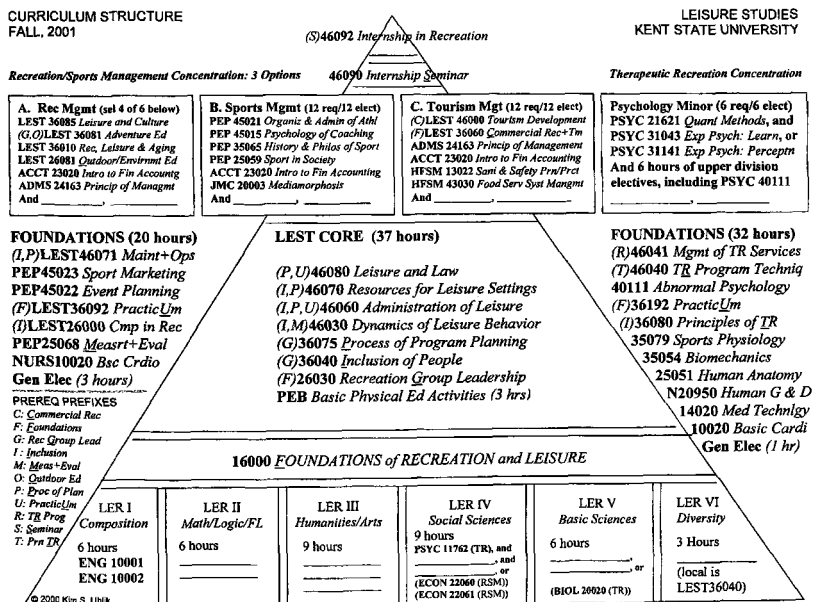


Figure 2. The advising pyramid diagram analyzed by respondents in the preliminary survey.

Sixty-six percent of the participants had opted to meet with their advisors prior to registering for spring courses, substantiating the 65% reported by Habley & Morales (1998). Of those students who brought textual materials to these non-mandatory advising sessions, 47 of 76 referred to the periodical spring semester course booklet, while 23 out of 76 relied on the more extensive university 2002-2003 annual catalog.

Learning style can be evaluated in several ways, including determining the distribution of respondents over the four styles by percentage (e.g. McCarthy, M., personal communication, March 14, 2002) and through ranking by preference as employed herein. When asked to choose among the four generalized learning style categories, 50 of 72 students ranked “doing” as their primary method of learning, and 26 out of a total of 66 respondents designated the visual style as their second choice. These statistics are consistent with Szucs, Hawdon & McGuire’s (2001) one-way ANOVA mean sums findings indicating that their Parks, Recreation, & Tourism Management majors exhibited strong “doing” preferences, followed in turn by “observing,” and then either “feeling” or “thinking.”

When asked to evaluate the advising pyramid’s visual appearance, 38 participants (50.7%) judged it “clear” to “very clear,” while 37 (46.3%) found it “confusing” or “very confusing”. In response to how the course information was arranged within the pyramid, 60 students (80%) rated it “organized” to “very organized”. When asked to give their overall opinion of the diagram, 41 respondents (53.9%) “liked it” or “liked it a lot.” Given the option of bringing the pyramid to their next advising session, 43 students (58.9%) would choose to do so.

Significant ( $p=.01$ ) associations existed among the advising pyramid evaluation components. Respondents who saw clarity in the pyramid’s appearance also found it to be organized ( $\rho=.376$ ), appealing ( $\rho=.761$ ), and potentially useful in advising sessions ( $\rho=.429$ ). Those who judged it to be organized also liked the pyramid in general ( $\rho=.539$ ), and its probable usefulness ( $\rho=.342$ ). Participants who held a good opinion of the pyramid indicated that, in addition, they would use it during advising sessions ( $\rho=.634$ ). Put another way, the 58.9% of participating students who would utilize the pyramid for advising purposes associate it with visual clarity, curriculum organization, and personal compatibility, regardless of their individual learning style.

### Implications for Practice

The present study’s results align well with those of previous investigations involving advising and learning style alike, and support existing evidence that the visual learning style is an important preference among Leisure Science students – second only to the doing style. These combined findings suggest that traditional advising formats may not represent the optimal approach for these students. While a doing oriented advising method remains unexplored by researchers (and is discussed, below), a visual method such as the advising pyramid can be adopted almost immediately as a supplement to traditional methods, a stand-alone option for visual learners, and perhaps as a surrogate aid for

kinesthetic learners. Students, including those who were not visually oriented, judged it appealing and useful both in 2001 and 2003.

Newly hired faculty and freshly declared majors can use the advising pyramid as an efficient, effective method by which they can familiarize themselves with the curriculum structure, and should receive personal copies of the diagram in their orientation packets. However, it must be noted that the pyramid's adoption by professors as an advising tool likely will be voluntary (and partially dependent on their own learning style preferences), and that acceptance among faculty involved in the initial implementation was less than 50%.

Although the learning style framework has been firmly established, the paucity of postsecondary advising/learning style research revealed by the literature review implies that few in academia have been evaluated on this basis; faculty advisors themselves may not be fully cognizant of their own teaching, learning or advising styles (Massy, 2003). Szucs, Hawdon, and McGuire (2001) have suggested that, "both the students' and the teacher's learning style should be determined in the beginning of the course in order to identify strengths and weaknesses in the four learning/transforming abilities" (p. 27). Perhaps this intervention should occur even earlier: such as prior to new students' initial registration (during their first advising session), and throughout each faculty member's own preparation. It may be legitimate to ask whether advisors have a functional, moral, and legal responsibility to identify and accommodate students' learning style needs (Nilson, 1998), and therefore should be mindful of their own.

Finally, those familiar with web site design will immediately grasp the organizing theme engendered by the advising pyramid's structure. Each visual component can serve as a link to pages featuring text portions of the respective curriculum (supporting the thinking style), which can be further accessed by additional links to the institution's main catalog, and to related courses and their instructors. If video and audio clips are included, visual learning is further enhanced and auditory/feeling learning is engaged. As students manipulate the mouse to "point and click" on the pyramid's various components, the kinesthetic learning style is partially activated and would be more so as interactivity increased. In its electronic configuration the advising pyramid addresses each of the identified learning styles in a proactive, integrative way. (An advising pyramid software application currently is under development.)

### **Implications for Research**

Given the general dissatisfaction with advising expressed by students in the aforementioned national surveys, the question arises; Are the two conditions, above, causally related, especially for Leisure Science students? Examining the nature of the relationship between student learning style and perceived advising satisfaction would address this question.

Researchers have found that accommodating learning style promotes more effective knowledge acquisition. Because academic advising is a form of learning or information exchange, the same relationship should hold true. Nonetheless, academic advising in a learning style context has not been examined fully to date. An investigation is warranted that, first, confirms advisee learning style (and advisor learning and advising styles), and second, tests the hypothetical relationship between learning style and advising effectiveness. For example, do visually oriented, graphical tools reduce scheduling errors on the part of both students and their faculty advisors? Do they shorten the amount of time from enrollment to matriculation?

Further, is the absence of learning style sensitive advising methods the result of a conscious choice, or of unintentional unawareness on the part of academic advisors? A survey gauging advisor familiarity with learning styles generally, and with specific methodology (e.g. the Learning Style Inventory instrument), would reveal the status of learning style knowledge among academic advisors. In addition, the survey could discover whether any other visually oriented advising tools exist.

A majority of the students participating in the present study found the advising pyramid's depiction of the entire school's curriculum (Figure 2) to be clear. However, almost half of the respondents thought the diagram was visually confusing. A less complex diagram created for individual units (only Recreation Management, for example) would be more appropriate, negating the clutter possibly resulting from listing extra-unit courses.

Research conducted by Szucs, Hawdon, and McGuire (2001) revealed that Leisure Science students favor the "doing" learning style above all others. An investigation of kinesthetically oriented advising techniques/methods seems in order. Finally, taking a sociopolitical tack would permit raising issues of access, equity, and institutional responsibility for accommodating students' diverse learning styles (Hirt, Murray, & McBee, 2000; Nilson, 1998; Steele, Leonard, Haberle, & Lipschultz, 1999).

## **Conclusion**

Academic advising should form the firm foundation on which students build their scholastic superstructure, learning more and more as they ascend through the curriculum toward educational and personal achievement. Yet, student dissatisfaction with advising remains a major issue. Explicit sensitivity to learning style only recently has begun to appear in the classroom, and is even less evident in advising settings. Although learning style distributions do not greatly favor one type over another, the use of graphically oriented advising instruments, whether inadvertent or intentional, may not have been considered. But many Leisure Science students are visual, and their advisors may be ill equipped to accommodate student preferences for visual formats.

Even for individuals whose learning styles are not oriented toward the visual, the survey results suggest that the advising pyramid will be informative and useful. The absence of significant correlations between the pyramid's evaluation components and students' learning style preferences indicates a general acceptance of the pyramid across all styles. Indeed, for more than half of the respondents, the advising pyramid seems to bring an almost instant clarity to the perceived curriculum maze, regardless of their learning style.

As Leisure Science students become more cognizant of their own learning styles, their advisors should possess the knowledge and tools to accommodate them. Evidence has clearly established a link between learning style compatibility and positive learning outcomes, and advising sessions are learning opportunities. The advising pyramid presented herein may be considered among the range of potential solutions for academic advisors and students, especially those who are – and increasingly will be – visually oriented.

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