Space and Power in the Ivory Tower:

Decision Making in Public Higher Education

Adapted from a Dissertation of the Same Name

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Abstract

The challenges of managing physical space in higher education are often left unspoken and under researched. In this multiple case study of three urban universities, decision-making processes are examined with particular attention to who has institutional decision-making authority. Effective and efficient space management is important because the use of space on campus can contribute to research and practice by promoting innovation and collaboration or can isolate individuals and departments in silos. This study identifies three distinct challenges related to space management on campus: the quality of space, the location of space, and the quantity of space. The research findings accentuate the importance of having a well-defined process, having knowledgeable decision makers, delegating authority, and having accurate data.

Table of Contents

"In academics, space is everything," remarked a researcher professor reflecting on a 37-year career in higher education (Beam, 1988). This quote rings true as many institutions of higher education are confronted with campus-wide complaints of lack of space or inadequate space for classrooms, research, laboratories, offices, social interaction, and innovation (Fink, 2002, 2004; Harris & Holley, 2008; Hillier, 2007; Huey & Valdenegro, 2006; Sturgeon, 2007; Thompson, 2002). This study indicates that many of the problems associated with space are related to inefficient use of space and cultural perceptions related to the meaning of space.

The importance of space on campus can be seen from several different perspectives. In his groundbreaking publications on culture and space, *The Silent Language* (1959) and *The Hidden Dimension* (1966), anthropologist Edward T. Hall observed that issues about space are unique in different cultures and are instrumental in how social groups arrange their lives and interact within their communities. This cultural concept of space also applies to organizations. It affects how individuals interact socially within their cultural group and across cultures and within and across organizations (Hall, 1966), as well as how individuals respond psychologically to their environment in terms of their own personal attitudes and behavior (Davis, 1984). When physical space in colleges and universities is viewed symbolically, the amount and quality of space allocated to individuals, departments, or to specific research topics is indicative of their value within the organizational culture and represents institutional priorities (Harris & Holley, 2008, p. 36). When viewed from a political perspective, space can be equated with power and prestige, and from a functional perspective, space can determine how one works (Davis, 1984) and how one learns (Chism & Bickford, 2002).

As a significant resource on campus, the way space is allocated and utilized can be indicative of changing campus priorities. Understanding space management decision-making in

public higher education is important to improving higher education practice because it provides insight into how institutions manage these limited physical resources in a constantly changing environment. The challenge to make effective space management decisions must be addressed to align with changes in pedagogy and research, to maximize educational effectiveness, and to promote institutional mission fulfillment.

At a time when there are enormous economic pressures on campuses to use resources effectively, space being one of these resources, the academic culture of shared governance, with its fragmented roles for decision making, presents additional challenges. These roles are fragmented due to independent faculty and administrative action. They are ambiguous due to the unclear lines of authority of the various bodies that constitute the shared governance system, which include faculty senates, faculty unions, administrative-faculty committees, and administrative committees. Bess and Dee (2008) noted that this ambiguity in authority creates complications in academic decision making, "not so much about the decision at hand but about who is responsible for making the decision—in essence, decisions about decision-making authority itself" (p. 589).

Purpose of This Study

The purpose of this study is to advance understanding of how public higher education institutions address space management issues, particularly those related to the allocation, utilization, and renovation of existing space on campus, and to examine the decision-making process.

The primary research question addressed in this study is: How are decisions made about space management issues in public higher education and how is the decision-making process related to academic culture and institutional politics, priorities, and changing values?

Literature and Theoretical Frameworks

The literature review focuses first on general space management issues, followed by an examination of the characteristics and role of academic culture in decision making and concludes with a survey of the literature on decision-making. Literature on decision-making theory contributes to the study's theoretical framework.

Space Management

Space management has been defined as "the art and science of maximizing the value of *existing* space and minimizing the need for *new* space" (Hier & Biddison, 1996, p. 17). Space management is important to colleges and universities because "facilities are the largest asset on the balance sheet and worth many times an institution's liquid assets" (Hier & Biddison, 1996, p. 17). Physical space is one of the most valuable and finite resources on campus that must be well managed to accommodate the competing needs of the various campus constituencies (Harris & Holley, 2008).

Not only is the management of space important for financial reasons, studies have shown that space psychologically affects an individual's response to his/her physical environment both in terms of attitude and behavior (Graetz & Goliber, 2002). Specifically, the physical environment affects how people interact (Davis, 1984), how students learn (Chism & Bickford, 2002), how students decide where to enroll (June, 2006), and how knowledge is exchanged (Harris & Holley, 2008). Space not only affects individuals; the way it is used can signify institutional priorities (Fink, 2004), symbolize institutional values, and transform the institutional culture (Harris & Holley, 2008). For instance, Harris and Holley (2008) conducted a study of 21 institutions with high levels of research activity (over $300 million spent in fiscal year 2004) to understand the significance given to interdisciplinary space for research in higher education.

They were interested in discovering how research universities planned to accommodate this changing paradigm, from discipline-specific research to a new focus on interdisciplinary research. They found a trend in institutional planning documents that promoted the elimination of barriers between academic disciplines and supported the reconfiguration of physical space to promote interdisciplinary interaction and collaboration among departmental personnel. These planning efforts indicate how institutions can support paradigm shifts or cultural changes by including physical space requirements in the planning process.

Academic Culture

Studies have identified the impact of culture on organizational decision making (Tierney, 2008) and the importance and role of culture in higher education (Bergquist & Pawlak, 2008). Although shared governance serves as the cornerstone to academic culture, this separation of roles and shared authority of faculty and administrators has been identified as the source of a "decision-making process [that] is fraught with a cultural aversion to risk and a fragmentation of authority that diffuses responsibility" (Blaik, 2007). Benjamin and Carroll (1998), Tierney (2004), and Ward (2007) have called for changes in the governance system, arguing that it is too slow and unresponsive to effectively operate in a rapidly changing environment. Burgan (2005), on the other hand, called for more faculty participation in governance, particularly in planning processes, and identified the presence of a new market mentality that is taking over academic values and virtually excludes faculty from some planning processes. The studies that call for change in academic governance have suggested that these traditional university governance systems may be better suited for long-term planning and that existing governance systems are stressed and ill-suited to effectively respond to rapid change.

Understanding an institution's culture can contribute to improved institutional management and performance and enhance the ability to address challenges and make significant changes (Tierney, 1988). Kezar and Eckel (2002) posited that knowing one's culture and working within its accepted values to effect change may be more successful than challenging those values. Equally valuable, however, is recognizing when the cultural beliefs should be challenged. For instance, if an institution's culture was change resistant, "it might be necessary or important to challenge the institutional culture, rather than work within it" (Kezar & Eckel, 2002, p. 458).

Academic culture has many dimensions and works at multiple levels. Not only is there a culture associated with higher education in general, but each academic institution develops its own distinct culture which defines the set of values, beliefs, expectations and assumptions that guide its behavior (Bess & Dee, 2008, p. 362). Furthermore, as a result of institutional decentralization, academic departments within colleges and universities develop unique cultures which define what they value and how they work. These cultures can be so strong that faculty members often have a greater loyalty to their department or discipline than to their institution (Kezar & Eckel, 2004).

Decision Making

Higher education is a complex organization which defies many of the decision-making principles employed in business and industry environments (Hardy, 1990). The most notable operational difference between higher education and other organizations is the separation of the roles of academic and administrative personnel and their sharing of authority and responsibility (Bess & Dee, 2008). This was referred to earlier as shared governance. Participation from these different segments of the organization can lead to the fragmentation of responsibility mentioned

above, even to the extent that it is not clear whose responsibility it is to actually make the decision (Bess & Dee, 2008). Despite these ambiguities and recent criticisms (Blaik, 2007; Bess & Dee, 2008), shared governance has persisted in higher education as a central tenet of academic culture and a key component in academic decision making. The differentiation between what constitutes an academic decision and what constitutes an administrative decision is often a gray area. Academic decisions are typically those which affect faculty work and the curriculum and lend themselves to a process of shared governance. They concentrate on the question: Where is the institution going, what are it priorities and goals? Administrative decisions are those which affect general operations and finance and speak to the question: How will the institution address those priorities and accomplish those goals?

The structural organization of institutions of higher education emphasizes a decentralized approach, in which colleges and universities are sub-divided into semi-autonomous departments or units. This departmental structure results in a natural grouping of individuals in departments with competing interests, consistent with interest-based coalitions common in the political framework (Bolman and Deal, 2006). At these times, they act politically instead of collegially and use their power to achieve their departmental goals (Hardy, 1990).

Several studies illustrate the value of having a decision-making process, albeit in different ways. Dean and Sharfman (1996) found that process matters in a business environment and had a positive effect on decision success. Hardy (1990), however, noted that a process developed from business principles had utility in areas of productivity and efficiency that were dependent on economic variables and analytic techniques, but were not useful in managing the social and political issues that are common in academic organizations. Carnahan (1983) observed that when decisions are made in a constantly changing environment, the decision-making process

is “marked with turbulence” (p. 247) and is also in a constant state of change, fluctuating with the change in participants and the effects of previous decisions. Finally, Eckel (2002) suggested, as did Dean and Sharfman (1996) that having a process contributed positively to the ultimate decision. However, as Eckel (2002) illustrated, having a process was more important than following it.

Theoretical Framework

The theory of limited rational choice (Eckel, 2002; Lindblom, 1959; March, 1994) is useful in understanding decision making in organizations such as higher education institutions which, contrary to for-profit organizations, have multiple constituencies and ambiguous goals. Limited rational choice theory acknowledges that information needed for decision making is seldom complete, all alternatives are not considered, preferences are individual, and agreement about goals does not always exist. The theory contends that although a relationship exists among information, criteria, and decision outcomes, decision makers acknowledge that it is not possible to consider all alternatives, and thus accept uncertainty and risk as unavoidable consequences. Since these conditions commonly exist in higher education, limited rational choice theory has been used to conceptualize decision making in this study.

Two aspects of limited rational choice theory, individual preference and conflicting goals, allow the introduction of the political frame. In the political frame, it is assumed that individual preference is motivated by self-interest (Hardy, 1990) and that individuals have different and competing goals (Baldridge, 1971; Bolman & Deal, 2003). These aspects of the political frame lead to conflict and the formation of interest-based coalitions that use power and influence to pressure the decision-making process (Baldridge, 1971; Bolman & Deal, 2003). The political frame becomes more pronounced in organizations where individuals or groups are

competing over scarce resources (Hardy, 1990), which is commonly the case in institutions of public higher education where competition over limited space can become political as powerful groups and individuals wield their influence over others.

Within this theoretical framework of limited rationality, further conceptualization is accomplished using three constructs provided by previous researchers: procedural rationality, decision rationality, and action rationality. Procedural rationality, as used by Dean and Sharfman (1996) in their study on decision processes in a business environment, is defined as "the extent to which the decision process involves the collection of information relevant to the decision and the reliance upon analysis of this information in making the choice" (p. 373). Their findings indicated that in an unstable environment, procedural rationality had a positive effect on decision effectiveness and that political behavior had a negative effect.

In his study on academic program closures, Eckel (2002) examined the effects of decision rationality and action rationality. Eckel (2002) adopted Brunsson's (1982) model which identified decision rationality as choosing the right thing, by "thoroughly exploring available options, weighing consequences, considering alternatives, and choosing the option that optimizes results," and action rationality as getting things done, by "seek[ing] information that supports particular palatable alternatives and analyz[ing them] in terms of a narrow range of desired results people will support" (Eckel, 2002, p. 240). The main difference here is that choosing the right thing, decision rationality, while viewed as being effective, may not lead to action, or implementation. Action rationality, on the other hand, is geared toward efficiency and is "dominated foremost by the desire to implement and to act" (p. 240).

Decision making is defined by Mintzberg as "the process of developing a commitment to a course of action" (Bess & Dee, 2008). This implies that decision making is the process that

precedes action or as Dean and Sharfman (1996) and Eckel (2002) suggest, is the result of the interaction of procedural rationality, decision rationality, and action rationality. (See Figure.)

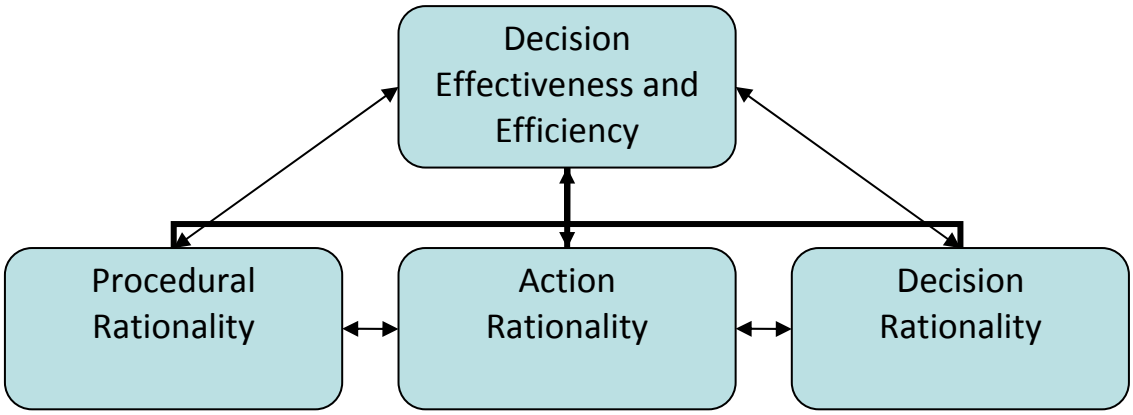

Figure: Theoretical Framework

Methodology

This qualitative multiple-case study contributes to a broader understanding of decision making and the inclusion of three cases makes the findings more compelling (Creswell, 2007; Stake, 1995; Yin, 2009). A multiple-case study design was used effectively by Eckel (2002) in a study examining decision rules used in academic program-closure decisions because, like the current study, "its purpose was to understand a complex process phenomenon that could not be quantified or controlled, and so that cross-site comparisons could be made" (p.241). Conducting a study with three cases is consistent with the literature that indicates that due to the in-depth examination conducted in case study research, the number of cases required to adequately inform the topic can range from a single case to more than one, but should not exceed four or five cases (Mertens, 2005).

Case study methodology is relevant for research that seeks to know "how" or "why" a social phenomenon works (Yin, 2009). This study examines "how" decisions about space management issues in higher education are made in real-life contexts consisting of distinct organizational cultural norms and values. The case study method is widely used in higher

education research to explain and describe complex phenomena, including decision making at colleges and universities (Eckel, 2002).

Qualitative research, as described by Creswell (2007), is best used when one needs to understand a concept or phenomenon that has received limited attention in the literature. The exploratory nature of qualitative research allows the researcher to discover important variables related to the issue under investigation that may not have been obvious from the outset and to explore themes that emerge during the study (Creswell, 2007). This study adds to the current literature by introducing a qualitative perspective to the predominantly quantitative research on space management issues.

Three, public higher education research institutions were purposefully chosen for this study. The institutions met the following criteria. They were, 1) public, research institutions[1]; 2) urban, primarily non-residential[2]; 3) had experienced growth in enrollments and research funding over the previous five to ten years; and 4) had either a new building or a significant renovation of an existing building in the previous five to ten years. These criteria ensured that the institutions were similar in structure and had recently faced decisions about space management.

Data Collection and Analysis

Interviews and document analysis were the primary data collection methods. A thorough document review provided background information regarding selected interviewees, campus organizational structures, space management policies, and campus operating procedures. Based on this review, interviewees were identified by their institutional responsibility and included: the administrator responsible for facilities; the chair of the faculty senate or space committee; the provost or chief academic officer; the administrator responsible for administration and finance;

[1] Defined as Carnegie Classification as either Doctoral/Research or Research institutions

[2] Defined as less than 24% of students living on campus

and one or more persons who were directly affected by a space management decision. The number of interviews per campus ranged from six to nine individuals, totaling twenty-three.

Higher education institutions are typically organized by function. The two largest functional areas are academics and finance and administration. To get an academic perspective, I interviewed both the chief academic officer and faculty who had a role in space management. These people provided a comprehensive view of the space needs of the academic departments and the extent to which faculty and shared governance played a role in the decision-making process. For an administrative perspective, I interviewed the chief financial officer and the director of facilities. All of the people interviewed for this study worked in units that reported directly to one of these two senior administrators. (See Table.) Personal, semi-structured and open-ended interviews were conducted on site.

Interviewees	**Case 1**	**Case 2**	**Case 3**	**Total**
Provost	1	1		**2**
Associate Provost	1		1	**2**
Vice President of A&F	1	1	1	**3**
Associate Vice President of A&F			2	**2**
Faculty	2	2	2	**6**
Facilities Director	1	1	1	**3**
Space Planners	2	1	2	**5**
Totals	**8**	**6**	**9**	**23**

Table: List of Interviewees

Two important aspects of qualitative research design; construct validity and reliability (Yin, 2009), were addressed. Both have been identified as ways to reduce subjectivity in case study research, often a criticism of this research method. Using multiple sources of evidence is a good practice to ensure construct validity in case study research. To ensure reliability of the

study and to maintain consistency between the multiple cases, I developed a case study protocol and database and used both throughout the data collection phase. The combination of both documents provided a step-like process that helped to functionally operationalize the study and allowed it to be replicated at each study site and by future researchers.

Interview transcripts, along with institutional documents, provided the data for these three separate case studies and for cross-case analysis. Data analysis started with document review and continued with coding and interpretation of the interviews. Using ATLAS.ti qualitative research software, interview transcriptions were coded and sorted. Codes were developed using topical areas identified in the literature.

As stated by Yin (2009, p.115), "the most important advantage presented by using multiple sources of evidence is the development of *converging lines of inquiry*, a process of triangulation and corroboration…." The multiple sources of evidence used to triangulate the data in this study include multiple interviews from different perspectives and a review of institutional documents used to corroborate and support the data garnered from the interviews. This triangulation of data contributed to the validity of the findings.

Findings

The individual case studies revealed different primary space management challenges on each campus. One campus had a *quality* of space problem that resulted in space that was not functionally adequate for its intended use. Another had a *location* of space problem, where related units were scattered around campus or were not located in the academic core. The third campus had a *quantity* of space problem caused by years of rapid enrollment growth. Despite these core differences, each institution talked in terms of "not having enough space" even though they may have had vacant space or under-utilized areas on campus. The importance of clearly

identifying and accurately defining one's institution's space management challenges emerged as an important finding. Institutions that fail to recognize their primary challenge may end up pursuing unnecessary new construction projects as a solution to a non-existent problem.

Effect of Organizational Culture on Space Management

Academic cultures have a strong impact on how institutions view their space and how they manage it. In the same way that culture shapes how people see themselves in the world by defining values, beliefs, customs, and the use of language, organizations also develop cultural characteristics. These characteristics are dynamic in that they develop over time and are influenced by changes in the environment and in participants.

This study identifies three relevant characteristics that shape the cultural beliefs and values on campus. First, is an acknowledged cultural divide between the faculty and the administration, sometimes seen as a divergence between an academic perspective and an administrative or business perspective.

The cultural divide between administrators and faculty is common on many campuses. On one campus it was expressed in ways that related to levels of respect, information flow, power, and influence. Institutions are viewed differently by these two groups. A faculty member noted, "An academic institution is much different than a business one." While a space planner noted the facilities department is like "a business that has to operate, that has to make money that has to sustain itself, that has to provide services." These two contrasting views result in administrators looking to cut costs and increase efficiency and while faculty try to maintain a sense of place.

However, another campus, with a commitment to shared governance, described this relationship between faculty and administration quite differently. They referred to a strong sense

of inclusiveness and the culture on campus was described by the both faculty and administrators as being participative and consultative.

The second relevant characteristic of the culture identified at each institution was a sense of entitlement or ownership regarding space. Although university ownership of all space is acknowledged in the abstract, it is not recognized in practice. Historically, space ownership and management has been decentralized to the college and departmental level, even to the point that some individual faculty members claim ownership of their offices. In many cases, these units have been located in the same place for a long time. As noted by one faculty member, "the existing space allocations, by and large, have been in place for at least 25 years or 20, so they've [departments] been like…in one location the whole time," with limited expansion and contraction over the years. Faculty are said to have "a bit of entitlement kind of mentality." This entitlement relates to both office and classroom space. As noted by one administrator:

> I do think we have this concept of owned departmental space in addition to general space. I think space has been constrained for so long because we've been on this steady growth curve, that I think people do get very possessive about space and departments do [as well].

This sense of ownership was addressed by the development or enforcement of institutional policies that stated that vacated space was not the property of the department, but must be returned to a central pool which fell under the direction of an administrative office. At one institution, a large percentage of classroom space was controlled and scheduled at the college or department level. An effort to change this and to centralize classroom management was instituted in two ways; first, by introducing a scheduling software program and secondly, by upgrading technology in selected classrooms. This two-prong approach gave something

significant to both the faculty and the administration. The faculty benefited by having upgraded technology in more classrooms and the administration benefited by regaining control of the classroom space. In some instances, having access to these enhanced classrooms counteracted the faculty desire to teach within the same building as their office. The provost noted that this effort "was a pretty successful culture change for things like classrooms…" The administrators were able to let technology force the issue of centralization by adding value to the classroom space and efficiency to the scheduling process.

These cultures of ownership and entitlement that develop on campus make it very difficult to alter space assignments and these cultural norms inhibit organizational flexibility and opportunities to accommodate uneven growth and expansion.

The third characteristic identified was a sense of resignation or acceptance of the status quo. This was expressed by a provost who commented on the faculty's understanding of scarce resources and their reluctance to ask for more or expect more than what they already have. A belief expressed as "We don't have much we don't get much," and "Hang on to what you have." The provost noted that upon visiting a faculty office, it was evident that the room needed new carpet and desk chairs and was surprised that the faculty member accepted this low quality working environment. In another instance, one building project which was identified as a critical need 15 years ago is still waiting for state funding. Although funding was close to being appropriated twice at the state level, it was delayed both times. Another director lamented that it took over five years to get space for a newly formed school and that it only came about with pressure from the accrediting body.

While cultures can develop around space, changes in space can have an effect on the culture. A provost went on to note that departments and colleges can choose how to spend their

money and that in many cases it depends on the perspective of the individual responsible for budgeting to prioritize the value of fresh paint, comfortable furniture, and other space improvements that can serve as morale boosters and work to change the sense of acceptance of the status quo. The space planners noted that people in new or renovated space had positive feelings about their space and were more interactive and welcoming. The quality of the space made them feel better about themselves, their work, and the university. They mentioned the positive effect of having a "hallmark" building on campus, one that is unique or outstanding, and "what it can possibly mean to a campus" and how it can have "a lot of positive influence on culture and attitude."

The culture of an institution affects how space and space allocation is viewed by the community, as shown in the next section, actual decision making about space issues is affected by other influences within the institution.

Effects of Politics, Priorities and Change on Decision Making

Decisions are considered the "core transactions" of any organization; however, scholars have acknowledged that half of all organizational decisions fail (Bess & Dee, 2008, p. 588). In addition to educating individuals and creating new knowledge, public higher education is expected to provide vital functions to society, such as developing a more just and equal society, while fueling the economy and engaging communities, businesses, and industry (Kezar & Eckel, 2004). With these diverse and vital functions, public higher education cannot afford to make ineffective decisions. This section explores the complexity of institutional influences by examining how campus politics and priorities impact space management decision making and how space management decision making affects and is affected by institutional change.

Politics

Politics and the influence of powerful individuals and interests groups play a significant role in space management decision making and are a constant factor that the decision makers must consider, and politics should not be considered as negative influences as is often the case. Bolman and Deal (2003) suggest that:

> A jaundiced view of politics constitutes a serious threat to individual and organizational effectiveness. Viewed from the political frame, politics is simply the realistic process of making decisions and allocating resources in a context of scarcity and divergent interests. This view puts politics at the heart of decision making. (p.181)

This practical definition of politics which focuses on the process provides a useful perspective for understanding organizational decision making. Their political frame "views organizations as living, screaming political arenas that host a complex web of individual and group interests" (Bolman & Deal, 2003, p.186). As such, the power dynamics of the political frame in higher education are revealed in the formation of coalitions that are based on the interdependency of the players: faculty, staff, administration, students, and external stakeholders. The diversity of these groups and their different goals and cultures "implies that political activity is more visible and dominant" and the scarcity of "resources suggest that politics will be more salient and intense in difficult times" (Bolman & Deal, 2003, p.188). The political frame also acknowledges the role of power in this environment of competing interests and scarce resources and defines it as "the capacity to get things done" (p.188). As one provost commented: "I think it's [space] a very political decision and I think that's what I started to say in the beginning is

that it's not a rational decision, it's a very emotional decision. I think because maybe because faculty has so little that it becomes an ownership [issue]…"

Politics and power are revealed in the three cases of this study in terms of: (a) people, (b) resources, and (c) ownership and control.

Power of people. The relationship between people and the power they have in space management decision making takes several forms. The decision-making process is open to the political influences of powerful individuals or interest groups. In many instances, success in obtaining space is based on personal relationships, "who you know," both in terms of finding out what space is available and in successfully getting the space your unit wants or needs. One faculty member noted, "I think you have to do much more political [work] than that and then if you don't start talking to people and working with people that even if you go through the process that will not get the space." The argument is that you have to talk to the right people to find out what is available, and then you have to work with the right people to get your request considered and to keep it a priority.

Individuals do have power based on their positions, but positional power is not only based on hierarchical ranking, it is also based on one's position within the space management process. For instance, provosts have power due to their roles as chief academic officers, but space planners also have power based on their access to information and their role as conduits of space requests to the decision makers. On several occasions, it was mentioned how influential the provost was in obtaining space. The director of an academic unit noted that: "Once the provost decided that we needed space, then it was much easier and things moved along much more quickly…."

Having positional power also has its drawbacks in terms of taking *politically incorrect* action. For instance, a provost acknowledged that a political oversight was made when he neglected to meet personally with the dean and the faculty of a college that was ordered to give up space.

> I should have been smart enough to know that the dean has to say "Oh, I didn't want this." How can they then face the faculty? I should have just gone over from the very beginning, taken it head on with the faculty meeting and said "You know I have to do this. Yell at me all you want, whatever."

This experience highlighted two politically important points; the importance of obtaining faculty input and the ability to show that they had been inclusive in the process (Procedural rationality).

The existence of space committees on campus serve two purposes, one is to bring individuals with different expertise and perspectives together to deliberate on space issues and the other is make the process more open and transparent, thus eliminating opportunities for negative political influences in the process. One space committee consisted of strategic appointments by the Provost and Vice President of Administration and Finance who had complete knowledge of institutional priorities rather than university-wide representation. A comment was made that faculty members are not represented on the space committee because they tend to focus on departmental or college priorities instead of institutional priorities. This delegation of responsibility allowed each to focus on their areas of expertise: "[The vice provost] is sitting there thinking about institutional objectives and academic planning objectives and I'm [the AVPAF] sitting there thinking about campus physical objectives."

Departmental power varies considerably in terms of the department's ability to acquire and maintain space. Some are better advocates for their needs and some end up being in the right

place at the right time. “It’s just the luck of the draw. Are you part of the next building that’s getting built?” As one administrator noted, “If your department happens to be popular in the external environment, resources may come your way.” For example, cycles of popularity based on local employment or economic development needs have included education, nursing, and health sciences.

One of the ways that the internal politics of positional power plays a role in decision making is seen in the way people treat each other. Although the space planners may be lower on the administrative hierarchy, they have power through the information they hold and the information they release. Space planners talked about departments that exhibited a sense of entitlement and were uncooperative or unwilling to compromise. One space planner noted that a department’s demanding approach of “just give us what we want and you pay for it and you figure it out because it’s your problem, created a scenario that cost them another five, six years to get [their project] started.” When that department’s leadership changed and the new person was more cooperative, the space planners were more willing to work with them toward their goals. So in this case, the department’s approach was politically wrong, instead of getting cooperation from those who could assist them reach their goal, they got resistance. They failed to realize the political importance of developing collegial relationships with people who were critical in the process.

Power of resources. The truism that “those with resources have power” was evident in terms of space allocation. Resources refer to both financial resources and space resources. In all cases, departments were responsible to identify funding sources to carry out their relocations or renovations. Space requests did not get to the decision-making point until funding had been verified. This put some units at a disadvantage as it was noted: “There are programs that just

have more money and their donors have more money. Their faculty produce more money. When it comes to their incremental space decisions, they make them first and they put the cash on the table." One administrator indicated that faculty researchers with more external research funding were often treated better and with more respect than those with less. They were assigned more and higher quality space and were offered more accommodations.

Power of ownership and control. While some space management issues related to classrooms were politically charged, that was not typically the case on campuses with buildings designated for general classroom use. The buildings were managed centrally and multiple departments shared the space for classrooms and offices. Reallocating space in those buildings was less political than reassigning space in a building that was viewed as having a single purpose use, such as the science building or the education building.

Priorities

The influence of multiple stakeholders makes identifying and defining university priorities difficult. System-wide priorities driven by governing boards influence the development of institutional strategic plans, which then influence the development of institutional goals and priorities. Priorities ranged from identifying centers of excellence, focusing on accreditation of academic units, enrollment growth and student retention, to strengthening and building partnerships with their city. Administrators noted that addressing those priorities, "will drive both space and funding decisions."

However, as mentioned earlier, a compromise between a president and a provost was necessary to designate only a section of a new building to a newly identified center of excellence when there was pressure to reprogram the entire space. This example illustrates the interplay of decision and action rationality. Although decision rationality might have resulted in taking

advantage of the new building to house the center of excellence, action rationality tempered the decision by introducing a compromise. In another example, an associate dean felt confident that his college would get the space resources needed to operate effectively: "...our college is almost the highest priority in the university. And so from that standpoint, we're growing. Its right smack center to the mission and vision of the development of the university."

Positional power on campus also plays a role in how institutional priorities are addressed. Space requests are prioritized based on where they originate and requests from the president and provost take precedence. As noted, "When the president has an initiative and he's decided to run with it, then you find the space." Or, "If the president decides something is gonna happen, then you know, the space committee will find the space." Since positional power is significant, then institutional priorities may change with changing leadership. For instance, one new president made shared governance a priority and designed space management decision-making processes that incorporated the spirit of shared governance. In this case, the chair of a campus-wide space committee noted that when conflicting space usage proposals were presented to the committee, decisions were made that promoted the university's priority "to promote teaching and research…as opposed to administrative space or some other sort of non-teaching on non-research appointed space."

The conflict of competing priorities was evident at all three universities. Each institution identified academic centers of excellence and academic building priorities, particularly the need for new science facilities, but the newest buildings on campus did not have an academic focus. The new buildings focused on other institutional priorities associated with enrollment growth and attracting and retaining traditional-aged students. Recreation centers and student centers, some built with student-generated fees or public/private funding were constructed to improve student

recruitment and retention while all struggled to get funding to upgrade science facilities. The high cost of constructing new science buildings resulted in incremental renovations and upgrades of older buildings, rather than new construction. On one campus, the student center was constructed in response to an identified priority of promoting commuter student involvement in campus life and the performing arts center was constructed in response to a desire to bring the public to the campus and show them the value of the institution. The performing arts center was viewed as a "hallmark building;" one that invoked pride in the institution and in its place in the state-wide system. Due to availability of targeted funding, both buildings pre-empted the construction of a science building that had been a priority for fifteen years.

The campus-wide planning processes which were intended to identify priorities, such as strategic planning, master planning, and academic program planning, were often decentralized and lacked integration which negatively affected their overall effectiveness.

Institutional change

The relationship between space management decision making and institutional change appears to be a two-way relationship. As institutions grow and change focus, space management decision makers have to consider the impact of new pedagogies and new ways of operating on spatial design and functionality. Within departments, some space management decisions have been made to accommodate changing needs and to establish efficiencies and higher utilization. These decisions in turn promote change within the institution. Since physical space is hard to change and expensive, strategic decisions need to consider institutional politics (action rationality) and be based on institutional priorities (decision rationality).

Institutions illustrated the significant effect of the change on space management decisions. New leadership resulted in the reconfiguration of a building under construction to

make room for new academic priorities and changes in enrollment numbers and patterns resulted in a college expansion into another building. A change in technology affected how classroom scheduling takes place and returned control of most of the classrooms to a centralized system. This change in scheduling had an effect on changing the institutional culture by altering the sense of entitlement and ownership in regard to classroom space.

The construction of a "state of the art" theatre on one campus, led to the creation of a college of performing arts. Although the purpose of the new theatre was to bring the public on campus and to establish a hallmark building on campus, it resulted in changing space allocations on campus to make room for a new college.

One institution changed its organizational structure by consolidating operational units from six vice presidents to three vice presidents. This change turned the campus from a decentralized, "dean-centric system of colleges" to a more centralized, coordinated system with more power at the vice president level. This change has affected space management by enabling fewer people to make major space management decisions, resulting in more coordination and consensus among decision makers. This more centralized system has reduced the "silo mentality" which focuses on individual departments and colleges and has redirected the focus to encompass overall campus priorities.

With effort focused on changing their image and level of prestige, another campus focused their attention on new buildings, better facilities, higher entrance requirements, and upgrading the quality of the faculty. One faculty member noted that the composition of the faculty is also changing and that the newer faculty have a different view on space, ownership, and territorialism that will have an impact on the way space is managed on campus in the future.

The relationship between space management and change is intricately linked at the institution which had experienced significant growth. The membership and operations of the space committee was changed to enable efficient and effective decision making, creative thinking, and quick actions. The decision-making process was designed so that space on campus remains vacant only long enough to retrofit it for its next purpose. Their rapid growth has led to leasing space in local buildings and purchasing new buildings close to the campus. Considering all of the changes that have taken place on campus, the uneven growth and the change in priorities, one administrator predicted a change in future building design, “So I think there will be less and less single purpose buildings. To be flexible, I think because we don’t know what’s gonna be the next hot spot, you better not lock yourself into this is science, this is arts.”

One faculty member expressed the importance of looking at space in a more functional and esthetic way. He noted that there was too much attention to space data such as square footage and not enough attention to the actual quality and design of space. Introducing form and design into the process changed the way in which one college was renovated. The space became a living environment which serves as a teaching tool itself and as a showpiece for the university.

The way space is utilized in an office environment can have an effect on how people work together and can change their perspectives. When one campus relocated administrative functions to a former office complex, they were able to introduce spatial changes at the same time. They took advantage of the modular furniture which was already in the leased space and assigned a dean and other administrators into open office space or cubicles, rather than private offices, introducing what one administrator described as “a really difficult cultural shift.” Embedded in their culture were concerns about personal space, regardless of whether it is an

office or a cubicle, consequently, when discussions of office size and location were not the focus, attention turned to the height of the cubicle walls.

Another example of how space management decisions affects how people work involved the faculty in the art department. Initially, the art department was rather small and the faculty had decided to share open office space, all faculty had space in one area where they could easily interact with each other and share ideas. When their space was renovated however, they decided that since the department was growing and they wanted to attract new faculty, they would have the space designed to include private offices for faculty. The change from open, shared offices to private offices changed the dynamic of the work environment and resulted in less frequent discussions among faculty and less interchange of ideas.

The way change in space management is instituted and explained also has an impact on how it is accepted. If it comes from within a unit rather than being imposed upon by other entities, then people are more likely to accept it. For instance, a space planner noted that if a plan to reorganize a floor was suggested by facilities to improve space efficiencies, it might not go over as well as if the same plan was the result of two departments working together and coming up with the same reorganization plan. Communication was identified as a key component of successful implementation of change; by providing correct and timely information about why space is being reallocated or reconfigured. By communicating the “big picture” to all constituencies on campus, space management with an institutional focus can result in a more unified campus where institutional priorities are known and understood.

Four Fundamentals of Effective and Efficient Decision Making

The findings related to decision making can be interpreted into four inter-related fundamentals that enhance the effectiveness and efficiency of space management decision making in public higher education institutions.

The first fundamental pertains to the process. The existence of a defined space management decision-making process was shown to be instrumental. This process starts with a protocol for requesting space which includes criteria for evaluating requests, prioritization, communication, and implementation. The protocol for requesting space was an important part of the overall decision-making process because it required requestors to fully explain their needs and provided the necessary information and the rationale for the request, explaining how the requested space aligns with the institution's mission and priorities. *Fundamental 1: A defined space management decision-making process leads to effective and efficient decision making.*

The next two fundamentals are related to the composition of the decision-making authority. Recognizing the importance of space on campus, decisions regarding its allocation are often under the purview of executive-level administrators. The three campuses in this study identified the president, the vice president of administration and finance, and the vice president of academic affairs as having the final decision-making authority. However, two important strategies were identified to limit their direct involvement in the process, thus saving their time and expertise for other critical institutional issues. The first of these strategies is effective delegation of authority. These associates were able to focus more of their time on space management issues than the vice presidents. *Fundamental 2: Decisions on space issues are more effective and efficient when the primary decision maker delegates authority to trusted subordinates with expertise in space management issues.*

A second strategy associated with decision-making authority is to ensure that those delegates have complete knowledge of and commitment to institutional priorities and have access to accurate data. The findings suggest that space management decisions seem to be more effective and efficient when made by either a group of executive-level administrators or a formal space committee of executive-level administrators that are knowledgeable about both institutional priorities and the institution's financial standings. Space planners, valued for their expertise and knowledge about space on campus, have an important role in evaluating requests and providing reliable information to the decision makers and requestors. The role of the faculty in space management decision making was informal and had the most impact at the departmental level. *Fundamental 3: Decision making on space management issues is more effective and efficient when made by a committee of executive level administrators with expertise in space issues who have accurate data and complete knowledge of and commitment to institutional priorities.*

This leads to the fourth component which pertains to the quality of the data maintained on campus**;** both quantitative and qualitative data are necessary in the space management decision-making process**.** Data-driven models and up-to-date, accurate space inventories are important to maintain an overall view of space on campus, but quantitative data need to be augmented by qualitative data to account for all the variables. One point which was important about space-related data was the collection method and the accuracy of those data. In an environment where departments are protective of the space under their control, there are incentives to misrepresent the status of the current space and to exaggerate space needs. As noted by a space planner, personally inspecting the space served several important purposes. It contributed to the accuracy of the data collected, provided an unbiased view of how the space

was being used, and revealed realities that may not have surfaced otherwise. National standards and guidelines for space allocation are important for new construction, but are less valuable in pre-constructed buildings where "making do" is the mantra. *Proposition 4: The roles of both quantitative and qualitative data are necessary in the space management decision-making process.*

Significance of Findings

The findings from this study contribute to the understanding of space management decision making in public higher education in three ways. First, this study identifies three distinct space management challenges prevalent in public higher education: quality, quantity, and the location of space. Secondly, it identifies important institutional influences that affect decision making in higher education: institutional priorities, internal politics, and institutional change. These three influences play a critical role in the decision making process. Thirdly, this study identifies four fundamentals of effective decision making. Together, these findings provide a better understanding of the complexity of space management decision-making and inform decision makers of strategies to enhance practice.

Conclusions and Implications for Practice

By using the case study methodology, I was able to learn more about how three higher education institutions addressed space management issues and gain a better understanding of decision-making processes in higher education. Based on what I have discovered in this study, I conclude with the following implications and recommendations for practice.

Be aware of your actual space management challenges. Perhaps one of the most significant findings in this study is the difference in specific space issues that each university faced. Although the campuses were chosen due to their similarities, each had unique primary

space-related challenges: One was challenged with the quality of their space; one was challenged with the location of space; and one was challenged with the quantity of space. Although these were not exclusive, they needed to be identified and addressed in a different way on each campus. This accentuates the point that before an institution sets up a process to address space management, they need to identify their specific challenges and acknowledge that these challenges can change over time.

Establish a decision-making process. The most pressing implication for practice is the evidence of the importance of establishing a process for space management decision making. This process needs to be clearly identified and communicated to the university community. Authority and responsibility for decision making should be delegated to administrators that are knowledgeable about space on campus and institutional priorities. Space planners need to collect and maintain accurate data based on both quantitative and qualitative analysis to make valid recommendations to the decision makers. Having designated personnel to maintain and analyze space data is important in that it frees up the time of higher level administrators and utilizes the skills and expertise of another group of professionals

Institutional priorities need to drive decision making. Only individuals who are knowledgeable about institutional priorities and that can bring an institutional perspective should participate at the highest level. Overall space management needs to be conducted in an environment where the institutional priorities and plans - both short term and long range - are known and there is a clear understanding of institutional needs. This can be facilitated by integrating strategic planning, master planning, and academic planning. In this way, plans for expansion of programs and enrollments can be considered as they relate to space and future space needs.

Flexibility is necessary when dealing with uneven growth and constant change. With increased functionality and flexibility, people and departments can freely move in and out of space as needs changes. Buildings that were named for a specific function inhibited flexibility when institutional needs changed. Educational innovation and change require both infrastructure flexibility and adaptability to accommodate uneven growth and constant change.

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