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USING MIXED METHODS FOR STRATEGIC PLANNING

December 2006

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Introduction

Without skillful use of mixed methodologies most strategic planning processes would fall far short of their lofty intentions. Organizations, especially higher education organizations, are complex. Understanding where best to advance strategy requires multiple points of intelligence gathering coupled with an understanding of how an institution's interactions shape its capability to pursue that strategy. Interactions that shape a college or university occur along formal and informal pathways both internally and externally. Capturing and understanding quantitative and qualitative indicators throughout the strategic planning process, including those indicators that emerge along multiple pathways as the process unfolds, can spell the difference between a meaningful strategic plan and one that gathers dust. Drawn from the author's experience in facilitating strategic plans in higher education institutions, this chapter illustrates how both the quantitative and qualitative paradigms can combine to create meaningful directions for an institution's future.

At its most basic, strategic planning is a process of anticipating change, identifying new opportunities, and executing strategy. Strategic planning can also be described as idea management in which new ideas are developed (or brainstormed), categorized, processed, and implemented. It is a journey that begins best when appropriate data, drawn from multiple sources and using multiple techniques, are transformed into "actionable" information. Contrasted to "pedestrian information," actionable information makes obvious the next steps an institution should consider. For example, understanding that an institution's enrollment is increasing is, for the most part, routine knowledge across a campus. Understanding what market segments are growing and the institution's penetration rate of those segments helps the institution to understand what actions may be needed to manage that growth. Ideally, the availability of actionable information creates an expanded appetite for more actionable information. Skillful use of mixed methods are critical for institutions desiring to harvest the best possible actionable information to guide strategy. Employing quantitative and qualitative techniques interdependently, and in balance, can mean the difference between a true strategy or strategy that "seems right."

Quantitative and Qualitative Techniques Applied to Strategic Planning

Quantitative and qualitative paradigms make different contributions to strategic planning. The quantitative paradigm helps strategic planners to describe the "what" in an

organization while the qualitative paradigm can answer “why” it is happening. In general, qualitative methods provide a better understanding of the context in which the development of institutional strategy can occur. Quantitative methodologies, on the other hand, provide an assessment of how the institution is currently functioning. The interest in qualitative techniques to supplement what has traditionally been perhaps an over-reliance on quantitative appears to be accelerating in recent years (National Science Foundation, 1997).

As used in this chapter, the qualitative paradigm refers broadly to human interactions and how data can be gathered from those interactions can be used to guide the development of strategy. Included here are one-on-one interviewing, focus groups, and what the author terms, "strategy sessions." Information gathered using these techniques can be used to guide the collection of additional quantitative data. More importantly, however, qualitative data should be used to make intelligent, informed decisions about what types of strategic actions an institution can reasonably pursue. Quantitative techniques, as their name implies, are chiefly exercises that use numbers to indicate an institution's operation and its environment. Included in this chapter are quantitative techniques such as accessing and examining internal and external databases, constructing and analyzing questionnaires, and the construction of Geographical Information System (GIS) maps.

A successful model for strategic planning incorporates both quantitative and qualitative data collection in a symbiotic way. Tashakkori and Teddlie (2003) suggest three temporal sequences for combining quantitative and qualitative data: (a) concurrently, in which two types of data are collected and analyzed in parallel, (b) sequentially, in which one type of data provides a basis for collection of another type of data, and (c) conversion, where the data are "qualitized" or "quantitized" and analyzed again. Taken together, there are primary and secondary uses for these techniques as they are applied to specific elements of strategic planning as discussed later. .

A Case Study

Among the largest in the United States, Broward Community College (BCC) is a multi-campus college district comprising three large campuses and three educational centers. Located in South Florida and stretching 25 miles north to south and 50 miles east to west, Broward County consists of 30 municipalities and almost 1,200 square miles. Only the eastern portion (410 square miles) is developed, however. This area is nearly at capacity for development, a fact that drives land and housing values upward. Palm Beach County lies to the north and Miami- Dade County to the south. The Atlantic Ocean marks the County's east border.

Under direction of a new president and to respond to expectations by its regional accrediting body BCC embarked on a strategic planning process in 2004. This process was intended to engage internal and external stakeholders in identifying key decisions facing the College by harvesting actionable data. The process began in that fall and culminated in a report to the College community in the spring of 2005. This experience is

used in this chapter to illustrate how mixed methodologies can converge to produce a strategic plan. Although the institutional type portrayed here is a community college, the techniques that are illustrated below and the lessons learned from employing mixed methodologies within these techniques can be instructive to all institutions who embark on strategic planning.

Strategic Planning Elements and Mixed Methods

The elements of the Broward strategic plan are discussed below. Readers will note considerable overlap among these elements as well as the synergy between qualitative and quantitative methodologies within each planning element.

Environmental scan. Broadly put, a scan of an institution's environment requires not just a volume of information but, at the first level of analysis, the ability to know what within that information is critical to the development of that institution's strategy. Data for environmental scanning are abundant and are growing more so on the Internet. Much of these data, however, fall short of criteria for inclusion in an environmental scan because they lack a direct connect to the institution or because their reliability are questionable. Before they can be helpful, their connection to the institution's scope of operation needs to be established. A second level of analysis, therefore, requires knowledge of the institution's current operations that can most quickly be gained by talking with key faculty and staff, in other words, qualitative interviewing.

While most of activity generated in compiling an meaningful environmental scan may appear to be a simple act of data retrieval and quantitative analysis, no scan can exist independently of institution's organizational structure and the culture that drives that structure. Learning about that culture and structure requires skillful use of qualitative techniques including individual interviews, group interviews, and tabulating the data gathered in the course of those interviews to create a framework that can be used to diagnosis the institution's current strategic stance and capability to pursue strategic actions. The Broward Community College environmental scan was tested in individual interviews and in strategy sessions.

Interviewing key stakeholders. Skillful interviews can yield helpful qualitative information. A necessary first ingredient is to establish rapport with the interviewee. In general, the more that the interviewer prepares for these interviews, the deeper that she or he understands basic institutional data, the better information they will yield. While quantitative data indicate the extent to which outcomes are being met, qualitative interviews speak more to how the participants feel about what is happening within an institution. Since mobilizing participants is key to future actions, a deep understanding of their perceptions advances the strategic planning agenda.

The results of qualitative interviews themselves may point to uncovering sources of an institution's quantitative data or to offering new meaning for that data. To ensure that those conversations yield maximum return, it always is recommended that the preparation for interviews with key stakeholders--a qualitative process--be augmented by analyses of

existing institutional data resulting from quantitative processes. Careful structuring of these interviews ensures that actionable data are captured from a wide variety of sources.

Focus groups. The term “focus group” has taken on multiple meanings in higher education. It has been used to describe casual conversations with more than several people in random settings, a misuse of the term. More appropriately, a focus group is a deliberate event planned to gather specific information. Well-planned and executed, focus groups are a qualitative exercise involving a protocol of questions designed to elicit communication while simultaneously not circumscribing meaningful dialog. In the same way that the preparation for one-on-one interviews require intimate knowledge of the institution to be effective, focus group preparation requires the interviewee to understand underlying issues facing the institution’s strategic planning process initially and how participant perspectives of those issues can serve as test bed for examining those issues.. Because higher education institutions are typically very busy places, creating focus groups is difficult, especially if they are based on participants affiliation with the institution.

Separate focus groups scheduled for students, administrators, and community stakeholders may not only be difficult to organize, they may also produce low attendance. Further, if it is intended that focus groups further the strategic planning process by providing an avenue in which participants can learn from one another’s perspectives, conducting focus groups based participant’s relationship with the institution does little to advance that goal. The author’s experience holds that focus groups can be helpful for strategic planning, but that heterogeneous groups organized to simultaneously represent the total institution produce deeper communication.

Large group “strategy sessions.” Among the most effective strategic planning techniques are large group meetings designed to promote an interchange of ideas about strategic issues facing an organization. These gatherings are sometimes labeled as focus groups although their purpose is somewhat different than the definition discussed above. In the author’s experience few stakeholders have been exposed to the concept of actionable data to make meaningful contributions to strategic planning. BCC scheduled twelve of strategy sessions to provide maximum access to the strategic planning process. Invitations to participate in the Broward strategy sessions were sent to students, faculty, and administrators to provide a wide range of perspectives and opinions.

Unlike a focus group in which opinions and perspectives are gathered from participants in a one-way fashion, the facilitator of a strategy session seeks to guide a dialog among the participants about qualitative and quantitative data and what that data may say about the institution’s future. Carefully designed so that all participants share a foundation of common data, strategy sessions in reality become brainstorming sessions at which new ideas can be processed across a range of participants. They began with a presentation of quantitative data about the College’s internal and external trends followed by a series of questions developed beforehand that were intended to elicit discussion.

In the author’s experience it is common that although many participants will have strong opinions about an institution’s future, common knowledge about the institution’s

current functioning as expressed in quantitative terms is more elusive. It becomes a key outcome of strategy sessions to acquaint key participants with data and to explain where that data arises as well as what it means to the institution's future. Because future strategy depends on credible data, strategy sessions and the process of certifying those data through group processes, played a major role in creating buy-in for the College's strategic plan.

Geographic Information System (GIS) maps. Most audiences do not react quickly to tabular data, especially if the rows and columns are numerous. Yet, data drawn from census tracts, small statistical subdivisions of a given county, were vital to understanding where BCC might target marketing and recruitment efforts. To make shifts within these tracts easier to digest, Geographic Information System (GIS) maps were prepared that provided a quick, visual overview of population changes, including shifts in income, minority subpopulations, age, and housing values, for the strategy sessions. Constructing these maps was a quantitative activity, driven by software and technology. Interpreting these maps, on the other hand, was a qualitative activity in which interviewees and strategy session participants were asked for their insights on population shifts within the College's service area. For some, this information was fresh; for others the GIS maps produced a new way of looking at BCC's potential student market.

Competitor analyses. Few institutions are aware of the range of instructional programs available at other institutions with whom they compete for students. This knowledge can be the basis for creating new programs or modifying existing programs. It can also point to programs that might be eliminated. Gathering these data from websites of competitor organizations in proximity to the institution or who compete regionally or nationally in given programs is a basic exercise in tabulating data. However, the nomenclature needed to describe programs so that they can be categorized accurately is learned best from interviewing academic staff and faculty. Titles to programs may not match their content and astute planners will want to ensure that programs that appear, on the surface, to compete with their institution's programs are, in fact, comparable.

Enrollment forecasting and scenario building. The approach used to forecast enrollments for Broward Community College included a baseline, or "status quo," projection coupled with the development of alternative scenarios based on specific institutional decisions about how to manage future enrollments. This process is decidedly quantitative in nature, especially in the process of constructing projections that compared trends in BCC's market share of key demographics to those corresponding demographics predicted for South Florida.

Scenario building, on the other hand, combines the quantitative process of calculating increased market shares with the qualitative process of deciding what specific actions are within the institution's capability to implement. Scenarios developed for BCC included increasing the market share of minority 18 to 24 year-olds first and, then increasing the market share of all 18 to 24 year olds, and finally increasing the market share of 25 to 44 year-olds. The gains for the College in these simulations are

considerably larger than the “status quo” baseline projections and led to substantive discussions about the institution’s future enrollment mix.

Instructional program vitality. Yet another strategic exercise that cannot be based on numbers alone are analyses of program enrollment data. While upward and downward trends in individual programs provide a first place to look when analyzing an institution’s instructional menu, the whole story needs to be researched before conclusions are drawn. For example, it may be that enrollments have declined in response to decisions to limit course availability, combining of courses across disciplines, faculty retirements, or lack of program marketing. Each of these potential reasons, and perhaps other considerations, should be balanced against other criteria including shifts in labor markets, expired curriculum that doesn’t match current realities, and actions taken, mostly inadvertently, that discourage enrollment. Without knowledge of these factors, gained qualitatively by listening to stakeholders internal and external to the institution, an incomplete picture of program vitality is more than probable.

Internal and external surveys. One-on-one interviewing and strategy sessions may not substitute for gathering opinions and insights by way of survey research. Data gathered from existing questionnaires and those developed specifically for planning can provide multiple perspectives about a college and its environment. Surveys can be a traditional paper and pencil version or, increasingly, web-based surveys. Interpreting survey responses is usually regarded as a quantitative activity. Crafting responses that lend themselves to unambiguous interpretation is also a quantitative task; creation of individual survey items, however, draws most often on questions developed during the course of qualitative research.

Analyses of labor market information. The Internet has made labor market information widely accessible, making it easier for colleges and universities to collect data that can be used to map the connection between the outputs of their career and professional programs and the world of work. Ten-year forecasts are available both for new jobs that will be created and for jobs that will grow most rapidly by county, region, state, and nationally. At the national level, these forecasts are connected to the most significant source of postsecondary education or training required for entry in each occupation forecast.¹

While employment forecast data are helpful, strategic planners should not expect a perfect fit between job titles and program labels. To provide the best prediction of academic programs requires knowledge not found in external databases. Insights required to accurately estimate the need for programs closely match those insights necessary to gauge program vitality. Skill in qualitative skill in interviewing techniques including the aforementioned need to establish rapport with interviewees as well as guiding the interview, asking appropriate questions about processes, engaging in empathy for the

¹ See, for example, the Bureau of Labor Statistics site. Retrieved December 21, 2006 at <http://www.bls.gov/emp/emptab3.htm>

interviewee, and tabulating interview results are beyond the scope of this chapter, but are key touchstones for ensuring that quantitative data apply to an institution's reality.

Moving to operational planning. A prevalent shortcoming of strategic planning is the failure to connect the dreams and aspirations that arise in strategic planning to specific actions specified by operational planning. Many college and university websites contain visually appealing strategic planning documents, but most do not contain specific actions to support strategy, assignment of responsibility for carrying out those actions, and, even more rarely, a commitment of dollars and human resources to make strategic dreams a reality. There is also a tendency to assign responsibility for actions to committees, rather than individuals. Plans of this variety are little more than public relations pieces designed to persuade readers that an institution is carrying out strategy. Mapping the intersection between strategic planning and operational planning and guiding institutions through this process requires finesse in blending mixed methodologies.

The predecessor to BCC strategic plan described here lacked clear links to operational planning. To close this gap, College administrators asked that specific action strategies be first developed by the consultant to support each of the new nine strategic goals. These initial strategies subsequently were refined in interactions among the College's operational units. The executive decision-making team then identified responsible parties and assigned executive sponsors for each strategy. At this stage of the transition between strategic planning and operational planning, it is very important that potential action strategies not be stated in such global terms that defies measurement. For example, an action strategy statement "improve the educational experience of students" needs more elaboration before it can be measured. On the other hand, a measurement scheme for an action strategy that calls for "improving student success rates in college-level mathematics" is easier to operationalize.

A key role of the consultant in this sub-process was to work with institutional leaders to ensure that the measurement of action strategies were quantifiable so that a clear picture of institutional progress could be made. To this end, "success factors" were drafted by the consultant and shared with those responsible for each action strategy to provide a quantitative and qualitative way of assessing goal attainment. These also were brought back to the College's cabinet for ratification. This process was iterative and required both a sense of the possible strategies and success factors that the College might pursue as well as an estimation of whether they could reasonably be successful. Some units in the College previously had not considered an accountability system based primarily on quantitative factors and improved upon by qualitative inquiry from senior administrators about the reality of the work.

To ensure engagement of each unit in strategic planning and to provide a transparent means of collecting potential action strategies and success factors across the entire organization, BCC created an online planning tool. This tool permits a comprehensive overview of the planning process while seeking new quantitative and

qualitative data from all layers of the College to inform and potentially improve action strategies and success factors.

Summary of strategic planning elements and mixed methodology. Table 1 summarizes the types of mixed methods associated with each of the strategic planning elements discussed above and indicates whether their role is primary or secondary. Note that, in keeping with the symbiotic union between the two techniques, no single strategic planning element is exclusively quantitative nor qualitative.

Table 1 Mixed Methodologies and their Application to Strategic Planning Elements		
Primary Methodology	Secondary Methodology	Strategic Planning Application
Quantitative	Qualitative	Environmental Scan
Qualitative	Quantitative	Interviews with Key Stakeholders
Qualitative	Quantitative	Focus Groups
Qualitative	Quantitative	Large Group “Strategy Sessions”
Quantitative	Qualitative	Geographic Information System (GIS) maps
Quantitative	Qualitative	Competitor Analyses
Quantitative	Qualitative	Enrollment Forecasting and Scenario Building
Quantitative	Qualitative	Instructional Program Vitality
Quantitative	Qualitative	Internal and External Surveys
Quantitative	Qualitative	Analyses of Labor Market Information
Qualitative	Quantitative	Creating Action Strategies
Quantitative	Qualitative	Creating Success Factors

Improving Strategic Planning through Mixed Methodologies

The application of mixed methodologies as illustrated above are vital to a successful plan and may be helpful for those charged with charting strategy for institutions. From the author's experience several other touchstones for using these techniques may save time and energy in the strategic planning process.

Sharing Techniques and Data

Educating the college community about data sources and the techniques used to harvest those data is an important facet in strategic planning. Steps taken to explain data to stakeholders creates credibility for the process, even among the few institutions that have successfully created a culture of inquiry in which quantitative and qualitative data are routinely used to guide decisions. Among those institutions that lack a tradition of either creating or sharing data, the process of strategic planning is more than likely to make many internal stakeholders uncomfortable, especially if an announced purpose of the process is to create actionable information. It is critical to the success of strategic

planning that establish the credibility for both the techniques employed and the data produced.

Institutions with no quantitative data tradition are also likely to lack the necessary framework in which qualitative data can be helpful to decision making. In fact, when quantitative data are not available, it is certain that previous planning has been based mostly on the opinions of senior administrators. It is also probable that what has previously passed for qualitative data are, in reality, scattered impressions gathered haphazardly. Lack of meaningful quantitative and qualitative data at the onset of the strategic planning process means that considerable effort will be required to position the institution to recognize and incorporate actionable information. The learning curve is steep. It is critical that the process of sharing data where it previously has been unavailable be seen as a first step in this journey.

Planning Cycles

Strategic planning cycles often assume a life of their own. That is, when an institution meets with initial success in strategic planning by demonstrating change through action strategies, it will want to repeat the cycle anew. While continuing the cycle of planning is highly desirable, it is also possible that the institution could become so beholden to the process, and become so busy in animating that process, that it fails to recognize other strategic opportunities. The result is that the purpose of strategic planning, that is, to anticipate, identify, and pursue opportunities, becomes secondary to the institution's planning calendar.

To offset this all-too-common tendency, institutions will want to encourage continuous intelligence gathering while ensuring that the operational planning cycle provides many opportunities to consider fresh information. Updating of environmental scanning should be a routine task that incorporates the most recent changes in external quantitative databases and fresh perspectives depicted by qualitative data gathered to support strategic planning including focus groups and interviews with external stakeholders.

Overcoming Amnesia

Strategic planning processes frequently suffer from abandoning previous strategies in favor of strategies that appear to be more attractive. While strategic plans should always be flexible to permit development of new strategic actions, discarding previous action strategies without accounting for their positive contributions to the institution or failures is a fool's errand. To counter memory-free strategy setting, institutions will want to ensure that the previously set success factors attached to each strategy are accurately measured. While it is almost certain that measurement issues will surface when deciding whether a given strategy has met with success, discussion of shortcomings in measurement should not automatically eliminate a strategy from continuation. Rather, there is probably much to be learned about how to improve quantitative and qualitative

measurement techniques as applied to institutional strategies that can, in turn, guide new strategies or refine existing strategies.

Providing for Multiple Outcomes

It is far easier to measure the inputs of action strategies than their outputs. Inputs measurements most typically are quantitative include dollars and human resources allocated to accomplish a given strategy. Measuring the outcomes of action strategies, on the other hand, require more creativity and a grounding in quantitative and qualitative techniques. Mixed methods provide a framework for detecting impacts, especially if those impacts are unanticipated or even unintended. Triangulation of data, that is, gathering data from multiple sources, is always preferred in strategic planning since, among other attributes, it ensures that multiple stakeholders can view the process as possessing validity.

Planning Ahead

The desirability of adequate preparation for each strategic planning element mentioned in this chapter has been previously noted. Collection and analysis of actionable data requires initial thought about the suitability of data collection methods as well as how that data will be integrated. First, initial decisions should be made about the extent to which qualitative techniques will be used to either provide commentary or detailed analyses to provide greater weight to quantitative data. Second, it is desirable to have a collection schedule and to revisit that schedule throughout the strategic planning process. Early analyses may indicate the need to alter the schedule, including the data sought and whether a switch in primary technique-- qualitative or quantitative--is warranted. Periodic revisiting of the schedule can help to mitigate against the strategic planning process becoming overwhelmed by data that is only peripheral.

Summary and Conclusion

A goal of this chapter was to demonstrate a link between mixed methodologies and effective strategic planning as the desired next generation in strategic planning.

Assembling and interpreting quantitative data, in isolation, is no longer a sufficient basis for plotting an institution's future. In an earlier era, when quantitative data were more difficult to gather, chiefly because they were only retrievable in print form, strategic plans with abundant external data were considered state-of-the-art. While there was always a role for qualitative techniques within this generation of strategic planning, extensive use of quantitative data served a larger role in legitimizing the process, especially among external stakeholders.

The next evolution of strategic planning has been ushered in by the Internet and the easy access to data and electronic databases it has provided. While, as discussed earlier, data-free plans still exist, mainly for public relations purposes, there is little justification for strategic planning processes that do not include external quantitative data that are

closely matched to the institution's operations and environment within in which it functions. The relative ease of assembling these data, however, is only a start. Above, the author has argued that unless considerable qualitative acumen is brought to their interpretation and refinement, this generation of Internet-driven strategic planning only makes quantitative data more conspicuous. The next generation of strategic planning will include a skillful mix of quantitative and qualitative data to guide true institutional strategy.

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