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Institutional Change through Assessment: Contrasting Case Studies

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In the fall of 2007 a major public research university undertook a review of basic skills and placement in two departments. The process of review and renewal in the two programs differed substantially, and divergent processes employed and outcomes gained may serve as an object lesson for the role of assessment within the process of institutional change. As in most social science case studies, there is more than one possible reading of the story. This narrative will focus on a specific set of differences from which lessons can be drawn. It might well be true that the less successful case could not have ended otherwise because of the underlying power structure. Still, by contrasting the cases, management lessons may be learned and those pursuing effective institutional change may find more broadly applicable ideas.

The framework for understanding the management difference is neatly captured by the 'red ocean' and 'blue ocean' strategies described by W. Chan Kim and Renee Mauborgne in 'Blue Ocean Strategy' (Kim & Mauborgne, 2004). In the original, the terms refer to alternative market strategies. Red ocean means competition in a market defined by a zero sum game. The gain of one party entails loss for another. This is typical for any situation where the limits and rules are long established. For example, if a company is selling automobiles they may pursue a strategy of selling the usual car at a lower price. Whatever market share they gain with this competitive strategy will entail a loss for other participants.

An alternative, less frequently used strategy is the blue ocean strategy which means developing new limits or rules which change the market in such a way that it is no longer a zero sum game. For example, a competitor in the automobile business might move toward radical innovation by developing a new type of automobile, perhaps a first

of its kind hydrogen car. This new technology would offer consumers a radically different alternative and open a new market with new rules. Although there is still competition between the old and the new technologies both can exist in the market without direct competition in price. The question is whether a new market for hydrogen cars will emerge.

The contrast between blue and red ocean strategies in business is well established. What it means for organizational change in the business of higher education is perhaps best demonstrated through competing case studies.

The Red Ocean Strategy of Change

In summer 2007 the administration of a senior public research university requested a study of basic skills courses in one department. The impression had grown on people for some years that either the admissions criteria for students were too low or the remedial test was placing students inappropriately because the number of entering students in that department's basic skills programs was expanding at an alarming rate.

To address this question a hardnosed assessment specialist developed a detailed quantitative study of the remedial exam and student placement rates. Comparing placement rates to admissions criteria the assessor produced a compelling case for the inappropriateness of the exam. The report showed no significant link between the placement exam and performance in the department's courses. It also showed no significant correlation between the exam and admissions criteria like class rank or SAT scores. In conclusion the report advocated a specific set of changes designed to address identified problems. Among the proposed changes was relying on existing admissions criteria more heavily and deemphasizing certain aspects of the placement exam. After

producing the report the assessor bypassed review by the department faculty, believing they would suppress it and took the report directly to senior staff.

Upon reviewing the report, senior staff confronted the department and insisted on change. In a compromise to the department, however, the assessor was reprimanded and the department was placed in charge of its own reform, including all future assessment. Within one year a new exam had been selected and the entire remedial system was revised. The new exam used national benchmarks to place approximately the same number of students in remedial courses. All future assessment was handled by the department and demonstrated, conclusively, the effectiveness of the placement program and the remedial course structure. Change was implemented, but it bore no resemblance to the changes proposed by the assessor, nor were the assessor's proposed changes ever seriously considered. Moreover, the changes did not address the fundamental concerns raised by the assessor.

This was a classic red ocean approach. The assessor naively sought to force change on a department through an appeal to power. This would have dramatically asserted the authority of the assessment office while undermining the academic department concerned. Effective change in higher education, however, seldom comes about through the assertion of power.

The Blue Ocean Strategy of Change

Parallel with the assessment which employed the red ocean strategy, a veteran faculty member was asked to lead a review of a different remedial program. The same hardnosed assessor had concluded in the original report that this other remedial program did not suffer the same level of disconnect between student needs and student placement.

Nevertheless, the veteran faculty member seized the opportunity to use assessment as a vehicle for implementing change. The method he employed took more time and acted more indirectly, but achieved a more dramatic set of changes with a markedly smaller cost. In the end, there was no zero sum game and opponents of change appeared as recalcitrant defenders of an antiquated regimen.

The process for achieving this blue ocean change can be seen as following a six step process: 1) Problem articulation; 2) Organic solution emergence; 3) Change implementation; 4) Assessing change; 5) Refining change; 6) Ongoing assessment.

Problem Articulation

In December 2007 the faculty member produced an academic sounding memo outlining a set of criteria for assessment and detailing a series of studies identifying the problem. He then proceeded to argue for a further set of studies and a specific agenda for change. This was followed by the rapid intervention of senior staff to insist on a new remedial testing strategy. A further memo in January 2008 accepted the proposed new remedial exam and outlined a detailed evaluation protocol for it. The memo included a detailed sample study of the new exam to calibrate equivalent scores to the old placement exam. It further proposed a series of validation studies to test the appropriateness of the new placement procedure. The memo included a detailed explanation of costs and benefits associated with the new placement process and the evaluation studies accompanying it.

An extensive quantitative addendum, ironically prepared in collaboration with the hardnosed assessor from the red ocean case study, followed in March, with additional material provided in April. These reports included a detailed power point presentation for

the dean and senior staff and carefully thanked all stakeholders for their collaboration in the evaluation process, including those stakeholders most fervently opposed to it. It also included extensive textual explanations for consideration of those who did not hear the original presentation.

The memos and power point presentation, detailed results of calibration studies and provided quantitative reassurance about the validity of the new system, including tests of gender and cultural bias. It also laid the groundwork for an alternative should the proposed exam not perform well in its first year of full implementation. The preparation of this alternative, would become critical to success a year later.

Organic Solution Emergence

Whether by design or fortuitous accident, throughout the first stage analyses, a latent alternative operated. This was based entirely on a refined analysis of existing admissions material and did not rely on the proposed placement exam. In effect, the existence of this alternative in many analyses laid the groundwork for a ‘fall back’ position with which the assessment team was increasingly comfortable. When the initial change proved less than ideal, an alternative was already at hand and seemingly radical change could be implemented without surprise. As all organic change, however, the emergence of this alternative is not neatly placed in a temporal framework and we will return to this in each of the following steps.

Change Implementation

Throughout spring and summer 2008, the new basic skills process was implemented according to the design proposed by the assessing faculty member. This change involved the laborious development of new systems and procedures across a

range of competing offices. Students were given a placement exam and placed in courses according to the calibrated cut scores developed in March and April. This process involved a wide range of department faculty working closely with members of the freshmen studies office and the department of institutional research and planning.

Why, you might wonder, was the office of institutional research involved in the implementation of this change? The answer is that change should not be implemented without clear preparation for future assessment. Properly planned, future assessment of change requires careful preparation. The appropriate data must be collected and stored, including details which may not be necessary to the placement process itself. As well, the department needed frequent consultation with institutional research colleagues on experimental design and statistical analysis. Without such collaboration, the department would have operated without technical information that was critical to the success of the experiment.

Finally, it is critical to recognize that change itself builds the capacity for change. Once an organization has been successfully dragged out of the standard operating procedures the potential for further change is increased. (Blau, 1971) The changes proposed and implemented to transform the remedial placement procedure engendered opposition, particularly from those accustomed to 13 years of the previously operating system. Once the familiar methods had been overturned the natural inertia of institutions favoring routine no longer precludes a broader range of alternatives. It was the reduction of this natural inertia which allowed the organic emergence of a different solution.

Assessing Change

Assessment should be built into the plan and prepared in advance. The existence of a prior plan reduces the danger of objective driven assessment. Once the change is implemented it may be favored because it requires less work or derided because the natural inertia of institutions is to return to a previously established state.

In this case, the assessment strategy was carefully mapped out in advance and was designed, if any thing, to vindicate the wisdom of the change. There was, conveniently, no possibility of return to the previous system because the preliminary work of the December and January memos had thoroughly delegitimized it.

The assessing faculty member, again working with the now thoroughly reprimanded hardnosed assessor, produced a detailed analysis of the basic skills system in January 2009, within weeks of the final semester grades. This assessment report provided an opportunity to not only assess the change but move the change even further forward toward an organic solution.

The assessment employed extensive statistical studies as back up, but it opened with two key claims and a proposal. The first claim asserted the wisdom of the change: “The placement method...was very effective in assigning students to the correct first-year writing courses.” The second bluntly outlined newly discovered risks and costs associated with the new system. The report then offered a radical proposal to abolish the placement system entirely in favor of specific, already existing, admissions criteria.

To the astonishment of the hardnosed assessor who had failed so spectacularly in the red ocean approach, the proposal was accepted with only limited opposition. Ironically, a carefully couched similar proposal offered by the assessor in the red ocean

approach was met with ridicule, although the statistical support was every bit as compelling.

Why were the three comments offered in the January 2009 memo readily accepted while the red ocean style report failed?

This touches on the thorny problem of establishing an idea's credibility. (Shapin 1994) The first claim reaffirms the wisdom of the faculty assessor's initially proposed changes. If the opening claim had read as an admission of error it would have undermined any following proposal. The second claim is a brilliant twist of institutional jujitsu. It plays on the fears people have about the new system, which has already been found to be successful, it also takes the natural inclination to reduce labor and casts it as the course of wisdom. Finally, the claim uses the uncertainty of weak institutional procedures regarding the remedial process to establish a fundamental critique of the system.

It is important to recognize that both claims were informed by a perspective of logic and argument based on a system of persuasion articulated by Stephen Toulmin. (Mislevy, 2006, 2007). As adopters of blue ocean strategies, assessment specialists should come to view validity as a series of integrated judgments (Messick, 1989; AERA, APA, & NCME, 1999; Brennan, 2006), context-specific arguments (Mislevy 2006, 2007) and procedurally-dependent observations resembling science itself (Embretson, 2007). Such a new orientation of offering validity arguments is congruent with the new framework offered by a blue ocean philosophy of opportunity development.

It was critical that this memo appeared in January immediately before people would begin implementing the remedial system for the next freshmen class. They were

already worrying about a new set of problems and how they would adjust relatively new procedures to address them. There was no old system to which they could return and they had a natural disinclination to undertake hard labor for little gain if there was a logical alternative. With those preconditions, the stage was set to grant credibility to the detailed statistical study which supported a new change doing away with placement testing, except in certain ambiguous cases, and relying instead on existing admissions criteria. Here was a final radical proposal which was readily adopted.

Refining Change

By itself, change in the assessment process is undesirable. Our blue ocean goal therefore had to be a shift from a static model (“Thank heavens that project is done!”) to an emerging model (“Now that we know the results, how can we improve our efforts?”)

Citing recent work in validation by M. T. Kane published that very year, the December 2007 memo argued that all shareholders must shift from a product-oriented notion of validity to a process-oriented conceptualization of validation. Completing that unbroken cycle of validation a year later, a December 2008 memo reminded senior NJIT administrators, as well as faculty members, that the university must reject a product-oriented, mechanistic assessment model (termed the “shotgun approach” in the memo) and adopt an experimental model (embracing validation, curricular alignment, technological support, and cost estimation). The content of these two memos, a year apart, documents that, from the start, the blue ocean strategy incorporated a set of strategic moves identified by Kim and Mauborgne (2007, p. 81). We had created an uncontested space for the assessment through strategic briefings; we had, thus, made the competition—the red ocean strategy described above—irrelevant in its static view. We

had created and captured a new demand for the kind of information only the blue ocean was capable of providing. We had deliberately problematized the traditional value/cost tradeoff by offering a model process model that embraced the complexities of assessment. And we aligned all shareholders, administrators and faculty alike, within a new system that pursued both differentiation of assessment results and the pursuit of low costs as new assessment technologies arose.

The impact of our process of refining change is evident in our new project: an analysis of automated assessment. We have just completed partnership with one of the nation's leading non-profit educational research corporations to experiment with connections between instruction and assessment. Once again, student performance will be examined through a new assessment tool. In the fall of 2009, the department embracing the blue ocean strategy will incorporate the product of the educational research corporation into its own locally-based instructional strategies to study differentiation results of student achievement and potential cost reduction. The philosophy of red ocean would have rejected this new assessment experiment. The red ocean captains would have noted that automated assessment already had too much competition for an existing market, that the competition would be unbeatable, that the existing demand could not be further exploited, that the value/cost tradeoff could not be met, and that while student differentiation might be met, the goal of low cost could not.

For the red ocean captains, the voyage was safely over. For the blue ocean captains, the voyage was about to begin again. By adopting a process of refining and re-defining change, the blue ocean assessment developers had embraced a different system of logic, one that incorporated process into the very fabric of its decisions.

Ongoing Assessment

As a final piece of reassurance the memo outlines ongoing studies and assessment to determine whether the new admissions criteria based system performs well. After having established the basic credibility of the proposal the assessor reassures the institutional audience that this only requires a single year of experimental implementation. Next year, if it proves in effective we will know it and can undertake the additional work required to implement the system which worked well this year.

Conclusions

This case study contrasts two efforts to implement change in a university setting. The first adopts a zero-sum approach—called a red ocean strategy—which fails miserably, tainting the advocate as unreliable and hasty. Although the red ocean proposal relies on strong statistical evidence it is summarily dismissed and given no credibility because it fails to lay the groundwork for its own believability. Adopting the proposal would only cost stakeholders without bringing any credible benefit.

The second parallel proposal adopted a blue ocean strategy where change was introduced in stages and assessed along the way. It systematically prepares stakeholders for a change in which they can ultimately believe because it appears credible and beneficial. This approach successfully implemented substantial change by initially proposing an alternative placement test and then settling on a radical proposal which could not have been proposed in at the launch of the process. Ironically, the final proposal echoes a change originally proposed in the red-ocean style assessment where it was immediately dismissed. The strategy by which information is presented, it appears, is as important as the information itself—a statement that would suggest that we are now

entering firmly into a post-structural period in institutional research. The metaphor of a system—classificatory, measurable, accountable—once uniformly adopted in America, as David Harvey (1989) has shown, may well be behind us. As Thornton and Jaeger (2007) have found, organizational cultural studies, embracing localism and the distinct patterns therein, may be of great help in understanding how arguments may be advanced within specific institutional sites. Ahead of us is an era of contingency in which everything depends not on system but, rather, on context.

Other instrumental analyses for the success and failure of these cases could be proposed, yet that is not the point here. These two cases illustrate fundamentally different approaches to institutional change, and they produce radically different results for predictable reasons. By drawing lessons from these cases, we may improve the effectiveness of our efforts to use assessment data when implementing institutional change. The six steps of the blue ocean strategy—1) Problem articulation; 2) Organic solution emergence; 3) Change implementation; 4) Assessing change; 5) Refining change; 6) Ongoing assessment—offer steps for the reflective institutional researcher to follow when undertaking the often dangerous task which is the essence of our mandate.

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