PART 3

SHAPING ALASKA'S FUTURE: HOW IS THIS SUPPOSED TO WORK?

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EFFECTS-BASED THINKING

Shaping Alaska's Future… It Is Still All About Student Success.

After two years of hard, successful work across UA on SDI (Phases 1 and 2), we are daring to advance to thoughts of Phase 3 … e.g. completion, metrics, light at the end of the tunnel, "is it soup yet?" or maybe just "enough, already." However, Phase 3 is anything but a downhill coast to the finish line. The last SDI phase will demand of us the most introspective and objective question and answer process experienced to date. It will be characterized by seeing the data gathering process transition over to more of a hybrid system analytics methodology in order to map out a course for the "D" in SDI. Phase 3's foundation will rest more on logic, along with a heuristic component that issues from a rapidly evolving national higher education experiential base.

Science today is telling us with more and more fidelity how we learn … the physics, chemistry, and biology of the brain's function during the process. Turns out real physical learning isn't that different from person to person when you get right down to it. Long held theories about men vs. women, visual vs. aural, cram vs. paced, are being debunked by the emerging science. Cracking the learning code has revolutionary implications for education at every level.

Teaching, on the other hand, is a whole different story. Effective education … the learning part that develops into critical thinking … is inextricably dependent on the effectiveness of the teaching part. Learning needs teaching. The vice is not necessarily versa. There is much more we need to understand about teaching … like, how much is enough? And about the right technique mix … how best can we blend science, art, creativity, and personality? Traditional classroom methods serve well, as do new and innovative teaching methods when both can capture and hold students' close attention to what's being presented … which, in turn, is showing up to be essential to the science side of learning. The need for good alignment is becoming obvious. We are also observing that when excellent teaching results in excellent learning, student motivation for seeking more of the same experience at the next level increases.

What's Broken?

Individual student educational value is created by the nexus of a productive classroom and a motivated learner. A highly functioning education process consists of an expanded series of these student success snapshots taken in ascending order over time from pre-K to grade 16+, where the requisite level of student accomplishment reached in one frame is essentially the matriculation starting point of the next, and so on, and so on. The continuum appears less sensitive to total time spent, such as part-time students might require to advance, as long as they are adequately prepared for the next level. It's all about maintaining an unbroken learning continuum. Fall short anywhere and the next frame in line also risks being sub-optimized. Learning science tells us that is

particularly true at key child or adolescent brain development points. To a certain degree small learning shortfalls in the outcomes of any one teaching period … what we can think of as the 12 school grades … can possibly be overcome later, perhaps with better teaching, better motivation, and for those able, accelerated learning to catch up. But academic repositioning is not likely to occur if the learning shortcomings persist repeatedly. Then the physical laws of learning science predominate and eventually can't be overcome due to the increasingly complex subject matter to be mastered in order to advance to the next level. In the end, an accumulating debt must be paid, which all too often includes options such as remediation, hold back, or drop out. At that point, a students' chances for normal, successful continuing education and even basic workforce placement can become seriously handicapped. Think of the education continuum as a vector to student success and attainment. While its velocity may vary for some, it must not be allowed to have its direction altered or its quality compromised for students struggling along the one true course to the culminating point – fully ready to start postsecondary education and/or workforce training. Unfortunately, for a large number of students in the U.S. and in Alaska, they never reach readiness. The questions for UA are: 1) What are we going to do about it? 2) If we don't do something, who will? Enter Shaping Alaska's Future.

Methodology.

Phase 3 of SDI can be called the "doing" phase. Our months of outreach meetings, hundreds of comments, reviews by governance, consultants, master plan reviews, attention paid to similar efforts by sister university systems, BOR concerns, and legislative recommendations have been distilled down to five major "themes." These are subject matter categories each within which hundreds of raw inputs have been collected and stored. SDI needs to not only address the impacts of individual inputs, their frequency, and even their legality, it must determine if, how, and when these inputs could be converted to actions. But what actions? I would suggest that we quickly overcome the natural tendency to try to answer that question first. The first question should be, "What is the specific problem or issue we want to address? The second question then becomes, "What is the outcome we want to achieve?" A useful tool that I believe fits our need in this situation is to reason the way ahead using Effects-based Thinking. The remainder of this paper discusses Effects-based Thinking.

How Do We Affect The Effect?

In a nutshell, SDI is a way for UA to answer the question, "Why do we do what we do, the way we do it?" The answer could be: (1) Because things are working fine; or (2) We should change. There may be another way altogether; or (3) There may be better MAU local outcomes that would automatically derive from improving overall UA institutional level outcomes. It makes sense to seek out a methodology that guides and controls the process to the right answer. I suggest that is what Effects-based Thinking (EBT) can do.

First, EBT seeks to specifically articulate any root cause and strategic level institutional problems or issues. Then it samples the associated operating environment for any potential road blocks to achieving a high level desired outcome. The desired outcome is what becomes the Effect we are looking for. Juxtaposed with a carefully crafted Problem (or Issue) Statement, the connection between the Problem Statement and the Effect Statement then becomes a discreet path to undertake … "to do" … Across a system, like UA, collaboration is the single most important fundamental characteristic of the "to do" efforts.

There may be more than one "to do" needed to make the connection whole. Several seemingly viable options that connect problems to desired outcomes may not work for reasons of time, money, manpower, legal, etc. Or it could lead to requiring increasing activity outside the institutional core competencies … a common reason for "mission creep." Some may only be viable if other related "to dos" elsewhere in the system (enablers) are accomplished first. To understand the workings and the inherent strength of Effects-based Thinking as we would employ it in SDI, a deeper dive at this point into the highlighted terms and their systematic relationships should prove helpful.

Systems Thinking – The First Step.

UA, with independent MAUs and their attached community campuses, is a system of systems. As such it makes good sense to apply a systems approach to SDI and to navigating the complex relationships that form our system. A systems level understanding of the consequences of proposed effects will strengthen the viability of our choices.

In that vein, as a start, what follows is a brief sampler compiled from numerous sources describing the generic characteristics of systems and systems thinking.

Characteristics of Systems and Systems Thinking

- Organizational systems consist of people, structures, and processes that work together to make an organization 'healthy' or 'unhealthy.'
- Independent elements can never comprise a system. (Think 'collaboration.')
- Systems thinking is an approach to problem-solving that views 'problems' as parts of an integrated whole rather than in isolation. A systems approach helps avoid incomplete solutions and unintended consequences.
- Systems thinking views systems in a holistic manner and requires examination of the linkages and interactions among the elements that comprise the system.

- Systems thinking attempts to illustrate how small, catalytic events that are separated by distance and time can be the cause of significant changes in complex systems.

- Systems thinking promotes organizational communication at all levels in order to avoid the silo effect."

Core Competencies.

Another guideline that warrants close attention is the often quoted (but less often followed) instruction to stick with your core competencies. Core competencies are the few enduring strengths of an institution. Focusing on core competencies avoids mission creep and wasted resources.

Core competencies do not work well in isolation, and should not compete against each other for resources. We must purposefully unite core competencies in a way that creates synergy and contributes significantly to strategic intent.

Core Values and Core Competencies.

Core values are the soul of the organization. Here we have a problem. UA core values are hard to find, not deeply meaningful, and as a result are practically unknown across the UA system. Every employee, every student, every alumni and every UA supporter should know our core values by heart. We should live them as an outward manifestation of UA being a values-based organization. In our SDI (Phase 3) work, the lack of awareness of UA core values and core competencies may be two of the first issues we want to examine. Without a common understanding of core values and core competencies, system-wide collaboration will be a chimera.

The better we get at articulating and internalizing our core competencies, the more effective the university will become at providing value to our students and competing well in a tough higher education marketplace.

In SDI (Phases 1 and 2), we identified five major themes that provide the conceptual framework and focus for strategic change:

1) Student Achievement

2) Productive Partnerships With Alaska's Schools

3) Productive Partnerships With Alaska's Public and Private Industries

4) Research and Development To Sustain Alaska's Communities And Economic Growth

5) Accountability To The People Of Alaska

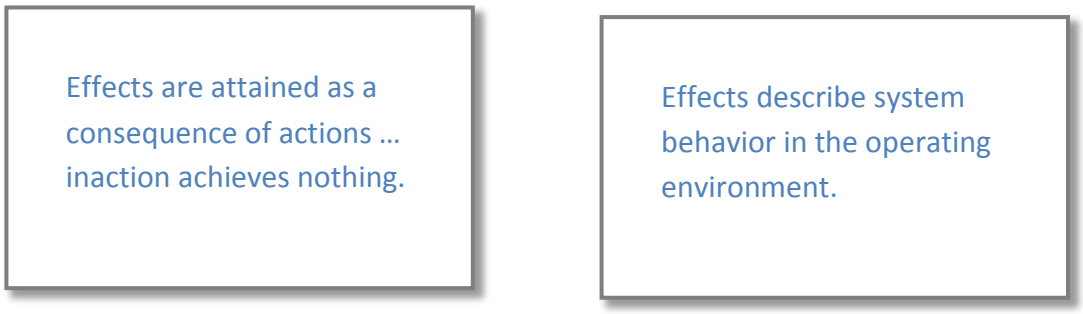
After articulating and evaluating our core competencies and our core values in the context of the five major themes, full collaboration will be required to contemplate, assemble, and unify many diverse efforts. Accreditation requirements, master plans, Board of Regents' policy and legislative guidance also must be factored in.

In effects parlance, if we get SDI right, the sum of the effects we will end up creating should enable us to create a profound effect across the entire UA system - a significant, measureable eye-opening improvement in Alaska's higher education effectiveness as seen from outside the system by Alaskans and by the academy.

Prior to commencing the last phase of SDI the primacy of data in our methodology is worth mentioning. The data we gathered from so many disparate sources gave us a general knowledge about issues and problems existing within our UA system. Knowledge by itself is of some value in our analyses, but awareness is one step up in the hierarchy and is even more valuable. "One is cognizant of something when one has certain (or special) knowledge of it through observation or information." We gain awareness by further manipulating the data - collect it, crunch it, create information, fuse information sources, try to reassemble the knowledge into "high definition awareness." The value goes up even more the closer the facts that we rely on are to ground truth and real time. Gaining awareness compels action. When near real time awareness is also supported by ground truth it enriches everyone's thinking and significantly enhances predictability. Generating quality awareness then, is more than just your average worthy goal. But it's also true that if one cannot achieve the desired quality awareness, the alternative, accessing an abundant quantity of (data) still has a quality all of its own. The point is, we need to be especially considerate of how to unlock the maximum potential from our database.

Effects – Break It Down.

- The difference between the means and the end.
- Bringing about a result, to influence.
- Are compilations, and thus may have many authors.
- A full range of outcomes, events, consequences.
- Have an element of discreetness.
- Are complex, not just complicated; they cascade.
- Have no clear lines of demarcation.
- Radiate out in time and space and influence one another.
- Have a psychological component.

- 

  Are more subjective than objective.
- Create collateral effects, second/third order consequences.
- A shift from input to output.
- Tough to pin down the closer you get.
- Relationship between a set of factors and a phenomenon.
- Anything that affects an effect is a factor.
- Effects are usually described using an active voice.

By this time hopefully we have sketched out a general awareness of the meaning of "effects." Employing that awareness, one might notice that stating an effect can, but does not necessarily, describe the means to achieve it, or does it necessarily infer causality - the relationship between an event and a second event.
Our machine for Shaping Alaska's Future, an effects-based operating process, is now ready for final assembly.

Strategic intent is comprised of system effects. Systems have tangible ties called nodes (people, material, facilities, data) and links (physical, functional, behavioral) and they form relationships. When they become broken or damaged they may precipitate any number of malfunctions that can jeopardize the whole system. On the other hand links and nodes can be benefitted substantially by effects that repair them and substantially benefit the whole system at the same time. Pockets of chaos - uncontrolled events - invisible inefficiencies - silos that result from dysfunctional or disconnected links and nodes (relationships) can grow insidiously into a state of affairs unknown to all, where the desired outcomes of mission effectiveness and continuous improvement are not in the realm of possibility, despite well intended attempts system-wide to rally morale and excellence among employees.

Since an effects-based approach is comprised of part logic, part art form, perhaps even linked to the vision of leaders, the human element is essential to knit the pieces together. Effects need an owner. Leadership fits in here. A working group can do it. A president can do it. A provost can do it. A

chancellor or vice chancellor can do it. Much better however, if they all work it together. They must be able to identify priority and timing; identify "enabler" effects. They can sum effects. They can model and test effects. The leadership mantra needs to be "marginal effects draws marginal interest," which is key to maintaining objectivity and prioritization. But above all they need to provide solid leadership throughout the entire effort.

Metrics.

Here is the simple part. An effects-based metric is an assessment mostly concerned with ratios and trends: recording small changes happening all throughout the individual UA campus system (nodes and links) or actions (behavior, capability), looking for positive indications over time. We are not pursuing absolutes or pass/fail criteria. We are not on a fast track schedule. Three to five years may be required to confirm that we are realizing the effects we seek. We want change to be broad, deep, and naturally paced. All along the way the UA system will expect us to be open and frequently communicating progress. We want changes in the character and style of the UA system to build pride and loyalty at every step without interfering in any way with the quality and excellence of the one-on-one relationships we currently enjoy between teacher and learner. Once we see positive, steady improvements in student success, finance, retention, and employee satisfaction trending throughout our metrics, once we see these improvements compounding over time indicating the SDI introspective process has become naturally self-sustaining, then SDI as a formal program can go away. That occurs because we will have finally adjusted our strategic direction. We will have belayed the wheel to maintain a new heading, and at the same time found a useful way that works for our new UA guidance and navigation system to regularly confirm our correct course into the future of higher education in Alaska.