

National Charter Schools Resource Center

SEA Communities of Practice

Identifying Leading Indicators of Success in Charter Schools

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Charter Schools in Arizona

- ▶ Charter schools in AZ were created in 1994 and started authorizing schools in 1995 because of a desire to increase pupil achievement through parent choice.
- ▶ Enormous state population growth and market demand for additional school seats has played a major role in the AZ charter approval and review process.
- ▶ In 2012 AZ now has over 400 authorized charter schools with over 500 sites.

AZ Charter School Authorization

- ▶ Since 1995, the AZ State Board for Charter Schools (ASBCS) has authorized or assumed authorization management for 99% of charter schools in the state.
- ▶ Defining charter school quality has been a challenging process. For much of the first 15 years, schools had to demonstrate market demand, be in overall compliance with state and federal laws and regulation and maintain a healthy financial operation for their 5 and 10 year reviews.
- ▶ The AZ State Board for Charter Schools application/approval process has gone through numerous iterations to improve quality since 1995.

The Arizona CSP Experience

- ▶ When AZ CSP staff was brought on board, it did not possess a set of leading indicators in its operation quiver.
- ▶ Rather it chose to use specific resources to guide its practice.
- ▶ The concept of identifying leading indicators as predictors of charter school success did not fully form as an operational concept until after the first round of applications was approved in early 2010.

Three Resources which Guided AZ CSP's Inaugural Practice

- ▶ All the questions mandated in ESEA 5203 as well a guidance provided in 5201-11;
- ▶ The Arizona State Board for Charter Schools Authorization Application;
- ▶ The job qualifications of the AZ CSP Administrator included founding and leading a highly successful AZ charter secondary school over a sustained period of time.

Practices Which Guided AZ CSP Application

- ▶ The AZ CSP designed its application based on the intersection of the following three application domains:*
 - ▶ The quality of the school's academic program;
 - ▶ The quality of the school's operation;**
 - ▶ The quality of the school's governance.
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- ▶ *Scored portions of the application include an Executive Summary and a section on equitable access to all students.
 - ▶ **The school's operation is also evaluated in a separate budget narrative.

Leading Indicators Motivating Question

Given the sheer number of applicants seeking AZ CSP funding,
and

Given the previous market based approach to charter authorizing
in AZ –

- ▶ Is there a set of leading indicators within the three essential charter school domains, Academic Program, Operation and Governance, that can be identified to predict charter school success?

Purpose of the Presentation

- ▶ To define the term leading indicator and how it is used to predict charter schools success;
- ▶ Provide examples of leading indicators of charter schools success at the system level.
- ▶ These examples are taken from real schools that went through the process.

Outcomes of the Presentation:

- ▶ Participants will learn the following processes:
 - ▶ Leading indicators are evidence-based, qualitative indicators which arise from the intersection of the three primary charter school application domains.
 - ▶ The process is continuous:
 - ▶ Leading indicators are derived from the grant application evaluation process.
 - ▶ Leading indicators can be refined following the monitoring process of awarded schools.
 - ▶ Leading indicators can be used to improve the application and evaluation process.

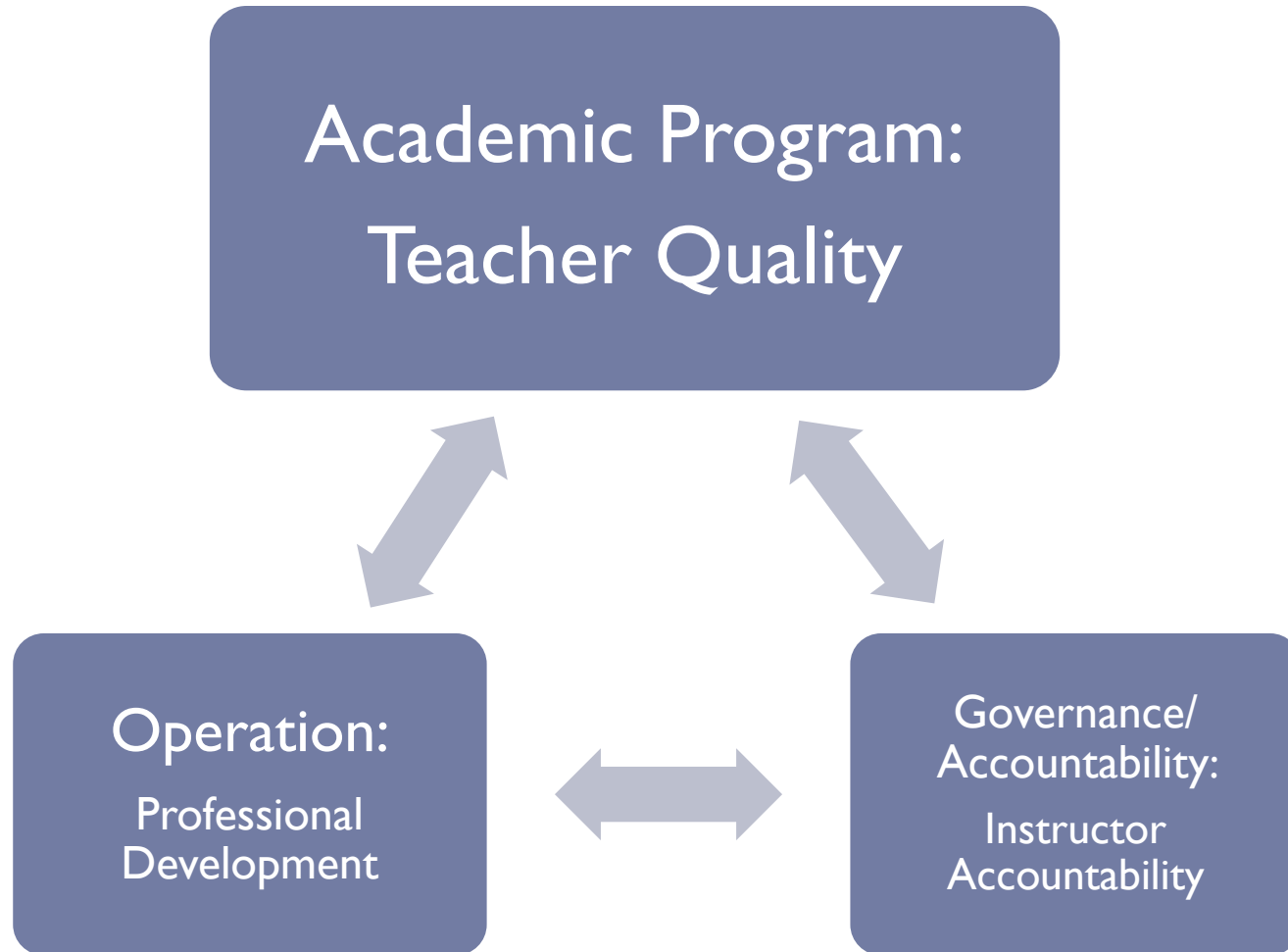
Leading Indicators Arise From a Process



Impact of the Presentation:

- ▶ We can improve the candidate selection process through a refined understanding of leading indicators of system success.

Current Leading Indicators by Domain



Leading Indicators

- ▶ The term *Leading Indicator* came out of the world of business and finance.
- ▶ Leading Indicators are measurable economic facts that change before the economy starts to follow a particulate pattern or a trend.
- ▶ These indicators are used to predict changes in the economy. Bond yields are thought to be a good leading indicator of the stock market because bond traders anticipate and speculate on trends in the economy.
- ▶ Unemployment is a Lagging Indicator. It does not predict but rather confirms that a pattern is occurring .
- ▶ We will see how a Lagging Indicator in education can be mislabeled a Leading Indicator.

Leading Indicators in Education Misidentified

- ▶ Because of NCLB's emphasis on annual state standardized assessments, many in the profession have built entire school cultures around test taking and view test results as an Leading Indicator of school success.
- ▶ Because a state's definition of AYP must be based primarily on its academic assessments, the results are most definitely an indicator.
- ▶ However, those assessment results are NOT a Leading Indicator; they are a Lagging Indicator because they confirm what has already happened.

Leading Indicators as Predictors of Student Success, a Definition

- ▶ One of the most comprehensive studies of leading indicators of student success is *Beyond Test Scores: Leading Indicators for Education*, Annenberg Institute for Education Reform (2008)
- ▶ The study examined four different school systems which adopted the basic premise that to increase student achievement, educators need to know much more about student progress before the test scores (lagging indicators) are available.
- ▶ The authors defined "leading indicators" as powerful, timely, actionable, benchmarked indicators that provided early signals of progress toward academic achievement.

Common Indicators in the Study

- ▶ The study coalesced around eight leading indicators. The first five were called Common Indicators.
- ▶ Early Reading Proficiency
- ▶ Enrollment in Pre-algebra and Algebra
- ▶ Over-Age/Under-Credited Students
- ▶ College Admissions Test Scores to Clarify High School Placements
- ▶ Student Attendance and Suspensions

Harder-to-Quantify Indicators

- ▶ Special Education Enrollment
- ▶ Student Engagement
- ▶ Teacher and Principal Quality

Leading Indicators for Predicting Student Success and System Success – Are They the Same?

- ▶ The leading indicators in the Annenberg study reveal quantitative measures for predicting student achievement within a school and school system if the information from the indicators target which student behaviors should be encouraged and which behaviors should be mitigated.
 - ▶ Early Reading Proficiency
 - ▶ Enrollment in Pre-algebra and Algebra
 - ▶ Over-Age/Under-Credited Students
 - ▶ College Admissions Test Scores to Clarify High School Placements
 - ▶ Student Attendance and Suspensions

- ▶ Is it possible to use a combination of these leading indicators and others to predict the success of schools which do not yet exist?

Leading Indicators for Predicting Student Success and System Success – They Are Different

- ▶ Yes, if the leading indicators are qualitative and evidence based.
- ▶ But first we must return to the three application domains to gather evidence.

Domain 1: The Quality of the School's Academic Program

- ▶ For the AZ CSP application charter leaders/applicants must demonstrate knowledge, skill and capacity in the following three areas.
 - ▶ Challenging Curriculum
 - ▶ Engaging Instruction
 - ▶ Rigorous Assessment

Domain 2: The Quality of the School's Operation

- ▶ Operation is not merely business and finance;
- ▶ How does the school use its resources to strategically support its mission, vision and values?
- ▶ How do leaders shepherd the AZ CSP award funds to build operational capacity to accomplish its goals?

Domain 3: The Quality of the School's Governance

- ▶ In Arizona, all charter schools authorized by the ASBCS become an autonomous education organization.
- ▶ The governing body of the charter school is solely responsible for the performance outcomes and the business operation of the school.
- ▶ The AZ CSP application places the responsibility of student performance, especially among NCLB identified sub groups, solely on the shoulders of the governing body.
- ▶ The sustainability of the school and succession plan of key leadership is also the governing body's responsibility.

Challenges in Evaluation

- ▶ The evaluation of each application is an evidence-based process. AZ CSP staff train evaluators to draw evidence from submitted application responses fairly and objectivity based on the following:
 - ▶ Full understanding of the criteria used to evaluate applications:
 - ▶ Rubrics that require evidence in applicant responses.
 - ▶ Inter rater reliability:
 - ▶ An evaluation graphic organizer for each question that helps evaluators systematically arrange evidence drawn from applicant responses.
 - ▶ Evaluator integrity and reliability:
 - ▶ All evaluators have extensive experience in successful charter schools, or managing other federal grants or in charter school authorization. All evaluators sign conflict of interest forms and are trained by AZ CSP staff for objective, evidence-based evaluation.

Examples from Successful Applications that lead to Successful Schools

- ▶ The following examples from Schools A, B and C are selected because they are related to the “Hard to Identify Leading Indicators” identified in the *Beyond Test Scores* study.
- ▶ It is important observe the examples at first seem to lie within the Academic Program domain but they strongly overlap the Operation and Governance/Accountability domains.

School A Examples of Teacher Quality

- ▶ School A stated in its application that it would locate in a low SES neighborhood with a high percentage of students eligible to receive free or reduced lunch.
- ▶ Newly hired teachers will be not just ‘highly qualified’ but will be ‘exceptionally qualified’ and possessing at least two of the following qualities:
 - ▶ Academic degree in primary teaching area
 - ▶ At least 1 year of true prep school teaching experience
 - ▶ Previously attended or taught at a Great Books program
 - ▶ Master’s or Ph.D. in primary teaching area

School A takes Responsibility for Building Teacher Capacity

- ▶ On-going PD opportunities:
 - ▶ The school provide workshops and seminars for its faculty quarterly;
 - ▶ Most teachers will teach 4 rather than 5 or 6 periods per day;
 - ▶ The majority of [School A] faculty will take advantage of summer PD within their first three years of employment.

School A Teacher Evaluation

- ▶ Headmaster Monitoring and Evaluation:
- ▶ 1. All teachers are evaluated by the Headmaster at least once per semester in their first and second years teaching at the Academy (though they are informally observed with far greater frequency).
- ▶ 2. Headmaster's evaluations are tied to meeting school goals and individual objectives for the students are reflected in the evaluation rubric that is ultimately used to determine annual performance-based bonus.

School B Plan for Teacher Effectiveness

- ▶ School B stated in its application that it would locate in a suburban neighborhood. It does not survey its students for economic need. Its goal is to provide a world class education for its students. It wants to go head to head with Singapore and Shanghai.

Teacher Recruitment

- ▶ Structured interview process – Upon being selected as top candidates, prospective teachers are asked to visit the school and perform a demonstration lesson in which they teach the students for one class period. After their first attempt, the prospective teachers are given input and advice before teaching a second demonstration lesson. This portion of the interview process helps demonstrate whether the applicant is knowledgeable in the discipline, capable of conveying difficult subject matter to young students, and able to learn and adjust quickly to new and demanding situations.

School B Assumes Responsibility for Building Teachers Capacity

- ▶ **On-going PD training:**

- ▶ Once prospective teachers are hired, they (regardless of past experience) attend a summer training session to prepare for the demands of [School B's] classroom. The goal is to give these educated and intelligent individuals autonomy and independence – and holding them accountable for their results – generates an environment in which creative individuals can thrive and remain passionate about their work. Other PD opportunities are offered throughout the year.



School C's Plan for Teacher Effectiveness

- ▶ School A stated in its application that it would locate in a low SES neighborhood with a high percentage of students eligible to receive free or reduced lunch.
- ▶ In its application, School C stated the following about its teachers:
 - ▶ “The educational partners like Teach For America have ensured that [School C] is staffed with teachers who believe in the mission and vision and are working hard every day to ensure student success.”
- ▶ Specific teacher selection beyond the TFA protocol and process are not presented.
- ▶ Newly hired staff training and on-going professional development planning are not presented.

What Monitoring Tells Us About These Schools

- ▶ Both School A and School B were awarded AZ CSP funds. Both schools are completing their third and final year of AZ CSP Funding.
- ▶ School A
 - It had a very difficult first year and had to replace its leader who lacked capacity to carry out school goals.
 - It did attract a high quality faculty which led to some unrest regarding the quality of the school leader.
 - The new leader worked with faculty and its Governing Body to revise its PD and make it more aligned to the needs of students.
 - The new leader and faculty never tried to hide or cover up its challenges but dealt with them head-on.

An important School A Lagging Indicator

- ▶ School A state exam results are 25 -35% higher (variance due to subject area and grade level) than its surrounding district schools even though it serves the same demographic population.
- ▶ It still has struggles meeting the goals outlined in its application. However, after only two years of operation, over 66.6% of its students are at or above grade level as opposed to 50% or less in surrounding schools.
- ▶ A critical predictor of success in School A's application was directly related to the quality of its faculty not only to their content and instruction competence but their commitment to the school's mission, vision and values. These areas overlap Academic Program and School Operation. Governance also holds leaders and staff accountable for results as part of its strategic plan.

School B

- ▶ School B has become very successful.
- ▶ Its success has brought criticism that it attracts students that already are outstanding students, that its success is not due to its operation but the capacity that students brought with them.
- ▶ It has been accused of cherry picking its students.
- ▶ It has been accused its curriculum is so difficult, it chases out poorly performing students.

An important School B Lagging Indicator

▶ Growth Percentile

- ▶ School B students are among the highest scoring students on AZ state assessments and nationally normed references tests.
- ▶ What makes School B special is the high Growth Percentile of its students which mitigates the student capacity criticism.
- ▶ Growth Percentile is based on the Arizona adoption of the Colorado Growth Model. GP reveals that students are showing continuous learning gains, that they are challenged to stretch.
- ▶ A critical predictor of success in School B's application was also directly related to the quality of its faculty not only to their content and instruction competence but their commitment to the school's mission, vision and values.

What Monitoring Tells us about School B

- ▶ Both the school's authorizer and various divisions of the AZ Department of Education have monitored and audited School B on multiple occasions.
- ▶ No evidence of unfair admissions practice has been found, no student has been denied a Free and Appropriate Public Education. Moreover, the school temporarily modifies certain elements of its curriculum to allow new students to catch up. It provides additional instructional support over and above regular classroom instruction to that end.

What Monitoring tells us About School C

- ▶ School C was granted an AZ CSP award because of other factors that were also present in its application.
- ▶ The School Leader is a person of high capacity and exceptional fortitude.
- ▶ The school is out performing neighboring district schools similar to schools A but monitoring reveals certain weaknesses in its operation that leading indicators would have predicted.

What's Missing in School C

- ▶ Primarily, the schools instructional staff is inconsistent in lesson delivery.
- ▶ Definition and implementation of staff performance standards and how to support the staff in order to meet state standards to ensure student success are not evident.
- ▶ As a result, some key elements of the instruction methodology identified in the school's application such as flexible ability grouping, differentiated instruction, Socratic instruction, design sophisticated scientific experiments are not readily evident.

What's Missing in School C

- ▶ School C wants to improve and it has a high capacity and charismatic leader committed to its success almost by force of will.
- ▶ The school is on track to eventually meet its goals but not at the rate and level it had described in its application.
- ▶ The inconstancies between the school's actual operation and its application overlap all three domains and demonstrate the necessity of leading indicators from a negative argument.
- ▶ At the same time, the students in School C significantly outperform heir neighborhood district schools.

Leading indicators: A Work in Progress

- ▶ Leading Indicators Summary from the examples of Schools A, B and C.
 - ▶ Academic Program: Teacher Quality
 - ▶ Operation: Professional Development
 - ▶ Governance/Accountability: Teacher Accountability
- ▶ Further Leading Indicators derived from the monitoring of these three schools and other awarded AZ CSP schools is the description of the school's challenging curriculum, the strategic management of the school's resources and the strategic plan for the school's continued accountability.

Conclusions from AZ CSP Improvement

- ▶ The AZ CSP staff has learned from three years of applications, application evaluation and school monitoring that indentifying leading indicators is a qualitative, evidence-based process.
- ▶ Predicting the success of a school that do not yet exist is not parallel to quantifiably measurable leading indicators identified in the *Beyond Test Scores* study.

Whither Leading Indicators

- ▶ Leading indicators will be confirmed or denied through frequent monitoring of the alignment of the school's application with its operation.
- ▶ If a consistent body of evidence arising from school practice supports the identification of a leading indicator of school success, it will receive a prominent place in the application and become an important aspect of evaluation training and subsequent monitoring.

Final Caveat

- ▶ One important element that leading indicators can not fully predict is the nature of dynamic, entrepreneurial leadership. There are some instances in which leaders can demonstrate knowledge, skill and capacity that is focused and passionately committed to achieving school goals even though all the pieces (domains), including leading indicators are not in place.
- ▶ How we measure that has yet to be attained.

Richard Elmore's prediction of the problem that would be created by NCLB.

Building a New Structure For School Leadership, Albert Shanker Institute (2000)

- ▶ **“PUBLIC SCHOOLS AND SCHOOL SYSTEMS**, as they are presently constituted, are simply not led in ways that enable them to respond to the increasing demands they face under standards based reform. Further, if schools, school systems, and their leaders respond to standards based reforms the way they have responded to other attempts at broad scale reform of public education over the past century, they will fail massively and visibly, with an attendant loss of public confidence and serious consequences for public education.”

Elmore's Assumption and Hope

- ▶ Elmore painted a bleak picture for many American school districts on the eve of NCLB adoption.
- ▶ Yet, Elmore also offered hope. Those schools which “[operate] in an environment of increased attention to student performance and quality of instruction... [and] discover that they need to learn not just different ways of doing things, but very different ways of thinking about the purposes of their work, and the skills and knowledge that go with those purposes.”
- ▶ Charter schools are uniquely situated to address Elmore's challenge. It's our job to identify promising charter schools and support them.