Comprehensive Strategic Research Plan

Kentucky Department of Education

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1 Introduction

"Vision without action is merely a dream. Action without vision just passes the time. Vision with action can change the world. "-- Joel Barker, Corporate Consultant. It is the vision of Kentucky Department of Education and the Kentucky Board of Education to ensure that all students across the commonwealth are provided the opportunities and resources to become proficient and prepared for success. Additionally, this means that students have the opportunity to graduate college and/or career ready. This comprehensive strategic research plan communicates the intentional and aligned acts of improvement based on the practices of research to be implemented by the strategy teams and goals leads of the Kentucky Department of Education.

2 The Vision and Mission for Education in Kentucky

Our Vision: Every child proficient and prepared for success

Kentucky Board of Education Mission Statement

The Kentucky Department of Education's mission is to prepare all Kentucky students for next-generation learning, work and citizenship by engaging schools, districts, families and communities through excellent leadership, service and support.

2.1 P-12 Integrated Research Planning and Goal Tracking

Every part of Kentucky's educational focus is directed towards ensuring student success from preschool through high school graduation and postsecondary choices. In order to ensure successful outcomes for each student, we must intentionally **align** our efforts to our goals, grade-by-grade and initiative-to-initiative, through thoughtful research planning.

This document includes a brief history describing how and why KDE identified these goals and associated research activities, continuous improvement, and a description of the partnerships that assist us in achieving all of these efforts.
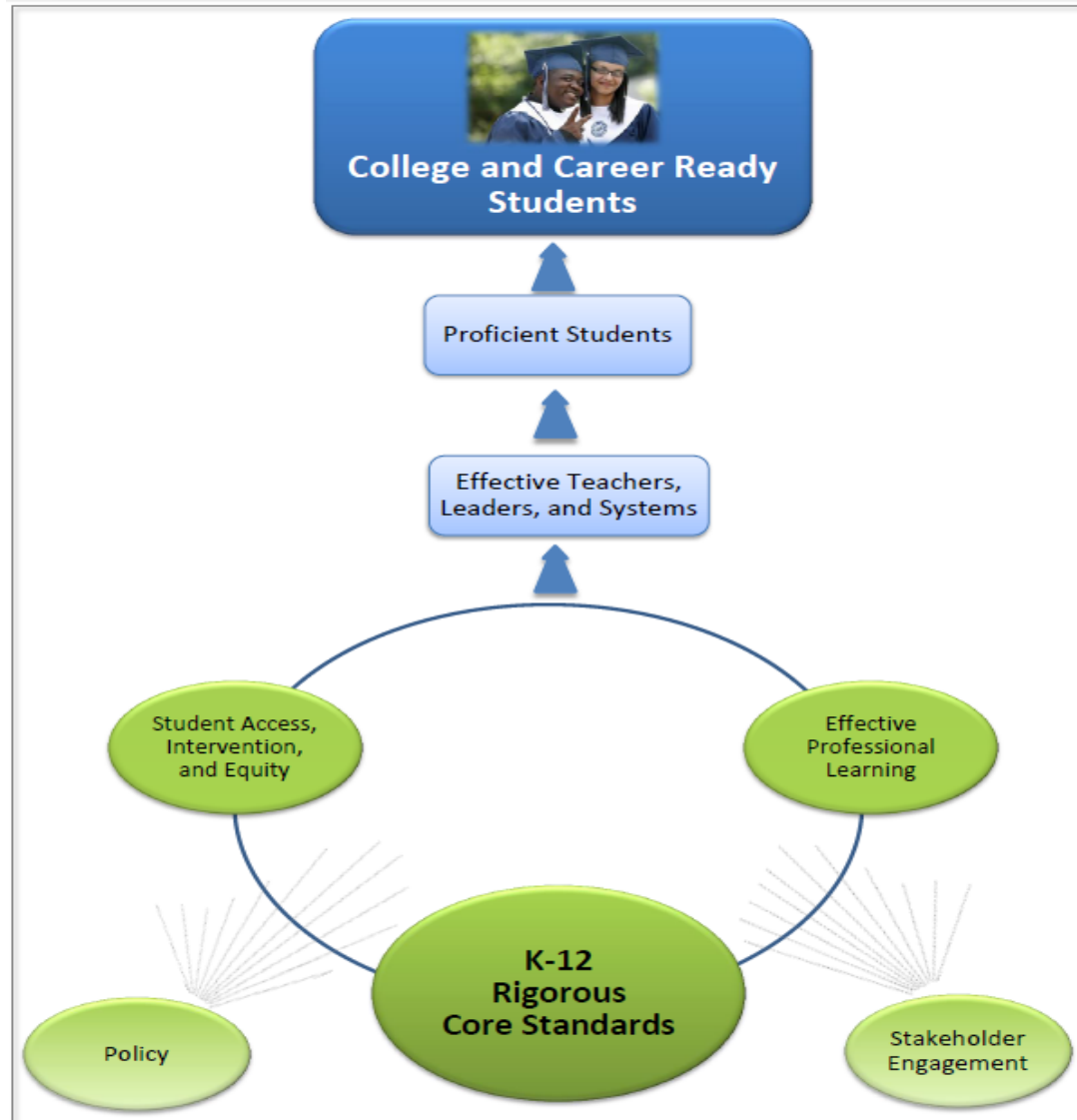
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Figure 1 illustrates Kentucky's priorities by identifying expected outcomes (blue boxes) and factors intended to produce these changes (green circles).

2.2 Framework for Research

"College and career readiness for all" is the key education outcome to which the Department, as well as the Kentucky Board of Education (KBE), is committed. Proficiency is used as a yearly indicator of ongoing progress while College and Career Readiness is used as a cumulative indicator of student achievement. Figure 1 illustrates how key factors produce change in priorities.

2.3 Kentucky Board of Education Strategic Priorities

In 2011, the Kentucky Board of Education established four strategic priorities in response to Senate Bill 1. In developing these priorities with corresponding objectives, the Board focused on the measurement and improvement of Kentucky's education system. In response, KDE established specific goals in response to student achievement, educator effectiveness, school support systems (e.g., program effectiveness, learning environment, working conditions), and school and district performance.

Next Generation Learners
- All students perform at or above proficiency and show continuous improvement
- All students will succeed.
- Every student will graduate from high school.
- Every student will graduate from high school college/career ready.

Next Generation Professionals
- Every student will be taught by an effective teacher.
- Every school will be led by an effective leader.

Next Generation Support Systems
- Use data to inform decision making as well as teaching and learning.

Next Generation Schools and Districts
- All schools and districts are effective.

2.4 Senate Bill 1

The premise for Kentucky's model rigorous core standards as input and college and career readiness as principal output of our education system comes from Senate Bill 1 (SB1) in 2009. This legislation passed by the Kentucky General Assembly required a complete overhaul of Kentucky's assessment and accountability system for P-12 education, including the creation of new, rigorous, focused, and internationally benchmarked standards that aligned with introductory postsecondary courses. As a result, KDE, the Council for Postsecondary Education (CPE), and the Education Professional Standards Board (EPSB) worked collaboratively to develop a plan for revising literacy and mathematics standards to establish content expectations aligned from elementary through postsecondary classrooms. The introduction of the Common Core State Standards in 2010 coincided with this review process, and Kentucky elected to adopt these new standards due to Common Core emphasis on clear and consolidated content expectations, greater depth and complexity, and on knowledge and skills necessary for college and career.

KDE and CPE further solidified Kentucky's focus on post-high school readiness by developing a Unified Strategy for College and Career Readiness with four goals directed toward increasing high school graduates, reducing postsecondary remediation needs, and increasing college completion rates. The Unified Strategy consists of common readiness indicators for college and career, including learning benchmarks and postsecondary placement indicators used by all in-state public colleges and universities.

2.5 Elementary and Secondary Education Act (ESEA) Waiver

In order to successfully implement Kentucky's reform agenda laid out by SB1, KDE submitted a request for, and received, flexibility waivers (Elementary and Secondary Education Act Waiver) from the U. S. Department of Education on 10 ESEA requirements... These waivers link directly to the KBE strategic priorities.

2.6 Unified Theory of Action

These four sets of state-level education priorities guide the type of work conducted by the agency and they serve as the premise for this overarching Theory of Action:

- If Districts are held accountable for the progress of their students,

- And if there are adequate supports given to teachers and principals to improve student outcomes,

- And if all students regardless of their race, ethnicity, social class, disability status, and proficiency using the English Language meet benchmarks at every grade from kindergarten through 12th grade.

- And if more students enter high school proficient in Reading and Math,

- And if those students complete high school college and career ready,

Then there will be more students who will succeed in post-secondary education and the workforce.

3   Alignment of Strategic Priorities and Goals

A crucial element of any state education system is alignment between its components. Traditionally, the focus of alignment included primary accountability components, such as academic standards, curriculum, and state assessments (e.g., USED, 2004; 2009). More broadly, state education systems, such as Kentucky's, have moved beyond traditional accountability models to include goals around achievement of specific student groups (i.e., gaps) and achievement outcomes (i.e., CCR), educator effectiveness, and school/district programs. A good portion of agency work is to be devoted to each of these education system components, and these agency initiatives should be aligned clearly to goals and evaluated regularly based on a rigorous research framework.

3.1 Education Evaluation Research

Evaluation research provides a critical look at how initiatives are developed and implemented as well as any associated impact on outcomes (Werner, 2004). In fact, effective evaluation with solid conclusions about outcomes should include both components – implementation evaluation and impact/efficacy evaluation. Implementation refers to "a specified set of activities designed to put into practice … a program of known dimensions" (Fixsen, Naoom, Blase, Friedman, and Wallace, 2005). Implementation processes should be well-planned, purposeful, and operationalized sufficiently so that observers and participants can determine "the what" and "the how" readily. Consequently, evaluations of implementation will include data collection on quality, consistency, and validity of program activities put in place across participants. Figure 2 below shows how KBE/KDE structured this strategic research plan.
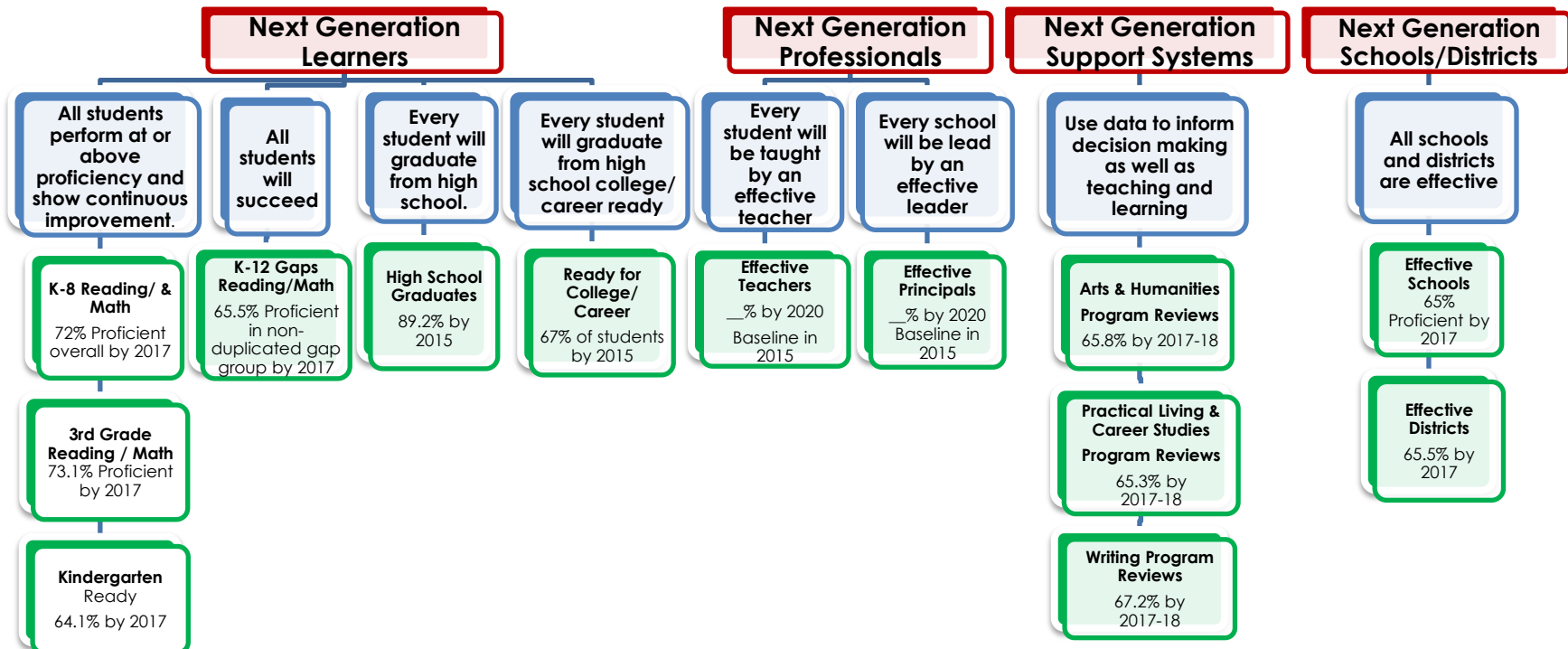
Figure 2. Kentucky Board of Education Strategic Priorities (red) and Objectives (blue) and Corresponding Kentucky Department of Education Goals (green)

3.2 Methodology

How does it all fit together? In planning and evaluating the impact of new strategies, teams connect the pieces and steps in the manner shown in Figure 3 below.

Figure 3. Shows how the steps of evaluation research are connected interdependently and to the agency's everyday work.
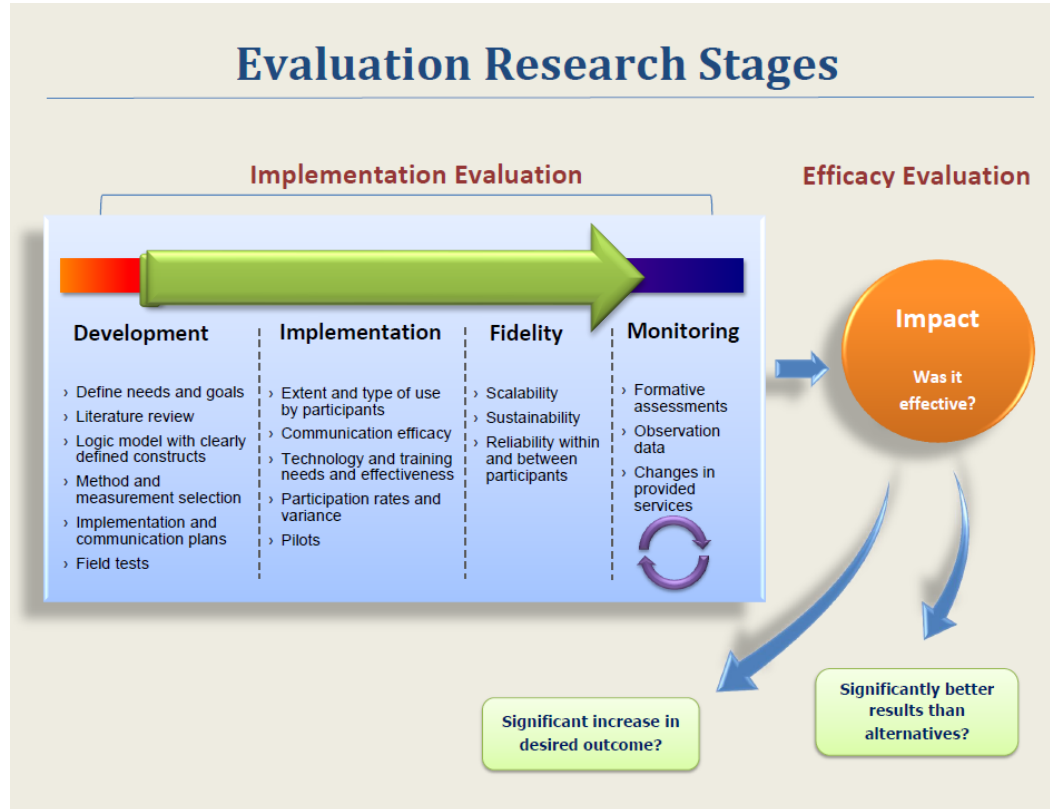
Figure 4. Common Phases of Evaluation Research

The Kentucky Department of Education models standard research processes when implementing new initiatives and determining the impact of these initiatives. Figure 4 provides an overview of common research activities and considerations for implementation and impact evaluations (Taylor, 2011).

Interim data and outcome criteria needed to build evidence for implementation fidelity and program impact.

Primary Data

- Data derived from experimental design
- Quantifiable, measurable (empirical) data on desired outcome
- Behavior change
- Quantifiable data on interim outcomes (e.g., progress tests aligned to outcome tests)
- Evidence of implementation breadth (e.g., number of adopters) and depth (e.g., degree of adoption)

Secondary Data

- Perception data from key recipients, key implementers
- Communication efficacy
- Participation rates
- Training efficacy

Outcome Criteria

- Significant, pervasive, consistent increase in key desired outcome
- Significantly better results compared to alternative programs and to nothing at all (e.g., effect size estimates illustrating magnitude)
- Multiple indicators demonstrating increases in key desired outcomes (substantiated by variance analysis)
- Decrease in undesired outcomes
- Changes in practice or policy based on significant outcomes
- Component usage (e.g., toolkits, software, websites)

Kentucky Department of Education Strategic Research Plan

Along the grade level continuum, figure 5 below illustrates where KDE strategy teams look for indicators of positive impact.
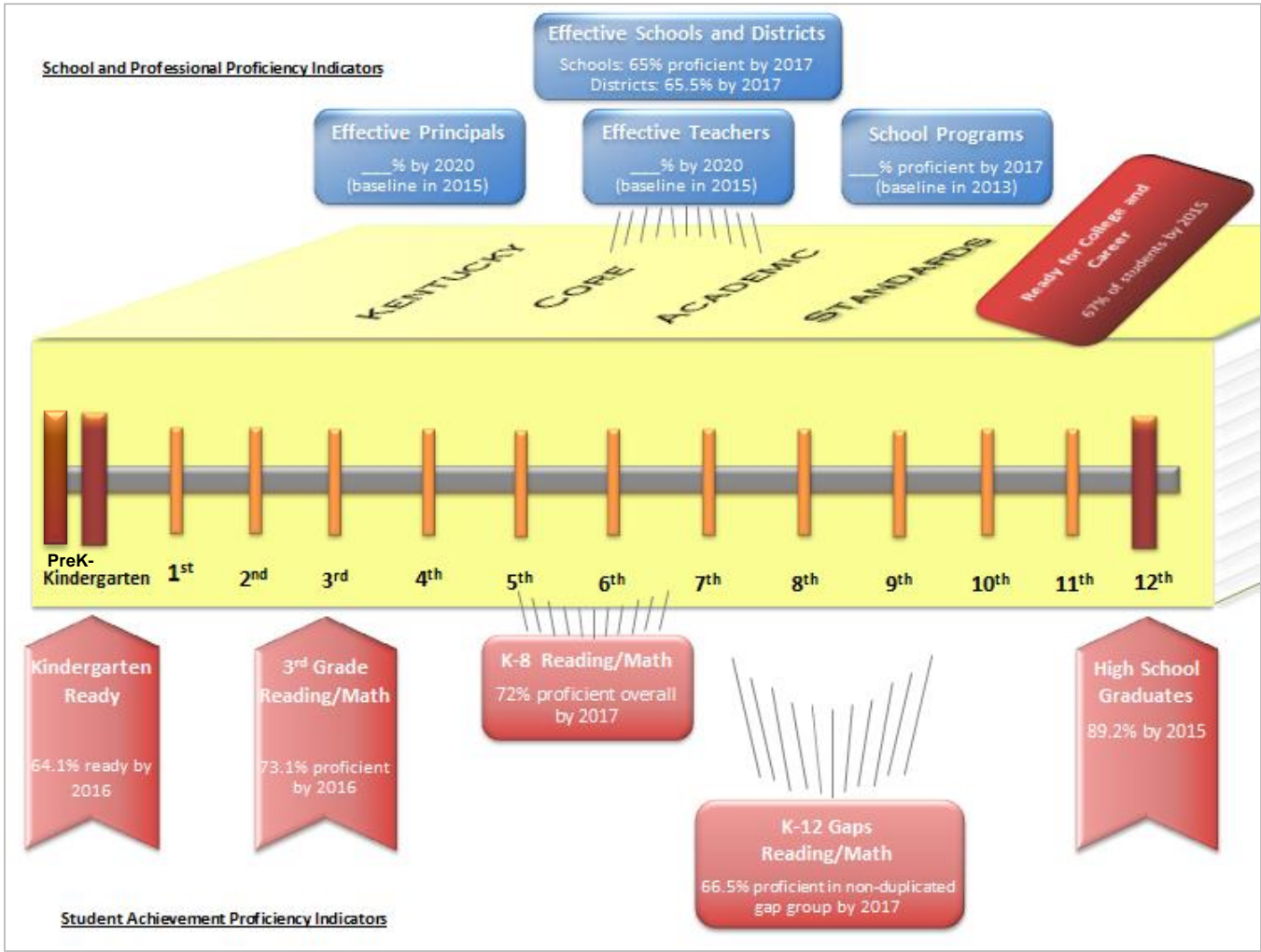

Figure 5. Proficiency Indicators

3.3 Focus on Continuous Improvement and Integration

Most program evaluation models implicitly include continuous improvement measures to estimate fidelity of implementation and extent of program impact. The model under which Kentucky operates focuses more explicit attention on short-cycle improvement measures. A key difference between this model and others is that it requires intentional prioritization and linking of all initiatives by the agency.

Goal leads are the implementation agents for each delivery plan. They lead and oversee the alignment of initiatives to the goals and objectives outlined in the strategic research plan. Strategies are integrated into multiple plans to ensure a comprehensive approach and impact on multiple goals as shown in Table 1 below. Furthermore, the work of the agency and members ideally and directly aligns to the initiatives that push on the goals and objectives. The integration of strategies across plans strengthens the efforts and deepens the impact. Continuous improvement activities guide the evaluation of each initiative as to the impact of the agency work on goals and objectives. Deployment strategies will reflect improvement based on impact data. The goal lead will examine the current initiatives that push on the goals to determine the amount of impact. If the initiative yields positive results then the initiative is continued as long as it is pertinent to the agency work. If the initiative does not yield positive results or even shows weak results, then the initiative is omitted or restructured.

Delivery Plan		Learner Goals						Educator Goals		Support System Goal
		CCR	GRAD	PROF	GAP	3rd Grade	K-Ready	Teacher	Principal	Program Reviews
Next Generation Learners										
Strategies	Career Readiness Pathways	X	X							X
	Persistence to Graduation	X	X	X						
	Integrated Methods for Learning			X	X					
	Early Learning					X	X			
Next Generation Professionals										
Strategies	Teacher PGES							X		X
	Principal PGES							X	X	X
	Human Capital Management							X	X	
	Professional Learning & Support			X	X	X		X	X	X
Next Generation Support Systems										
Strategies	Stakeholder Engagement							X	X	X
	Management Systems								X	
	Learning Systems	X	X	X	X	X				X
	Continuous Improvement									

4   Next Generation Learners

The Next Generation Learners Delivery Plan for 2014 can be referenced here.

Objective	Research Questions	Goal	Measurement
Every student will graduate from high school college/ career ready	a. Is performance on End-of-Course exams correlated with college-ready benchmarks? b. How many students graduate CCR per year since 2010 (measure of percent increase)? c. How many students are CCR by 8th, 9th, 10th, 11th grades? How have these rates changed since 2010? d. How many additional students become CCR (who were not) from 8th to 9th, 9th to 10th, 10 to 11th, and 11th to 12th? e. How many students submitting Early Grad Intent Forms are CCR at time of submission? f. What indicators exist currently showing number of students "on track" to graduate? For example, what is required of students per year (if anything) from 6th grade on in order to "graduate", and how many students meet those requirements? g. What CCR rates do we need per school/district per year to achieve goal? h. What indicators exist currently showing number of students "on track" to graduate college and career ready? i. Do readiness rates vary (higher or lower) per assessment (e.g., ACT, KOSSA) measuring benchmark mastery? If so, in which direction and why? For example, if students pass KOSSA with higher frequency, is that due to test differences, test preparation differences, student differences, or student age differences? j. If students are not on track to graduate CCR, what are schools doing to get them there? k. When schools implement interventions, does student performance improve? How quickly? l. Does student success vary by intervention? If so, what most contributes to differences? m. How are schools and districts using TELL Survey and Student Voice survey to meet student needs?	Increase the percentage of students who are **college and career ready** from 34% in 2010 to 67% by 2015	The College Ready indicator includes graduates who met the Kentucky Council on Postsecondary Education (CPE) System-wide Benchmarks for Reading (20), English (18) and Mathematics (19) on any administration of the ACT. The College Placement Tests indicator includes students who passed a college placement test (COMPASS or KYOTE). The Career-Ready indicator includes graduates who met benchmarks for Career-Ready Academic (ASVAB or ACT WorkKeys) and Career-Ready Technical (KOSSA or received an Industry-Recognized Career Certificate) **Progress Indicators** State • Increased percentage of students meeting college benchmarks at graduation. • Increased percentage of students meeting career benchmarks at graduation. • Increased percentage of students "on track" to graduate. • Increase In year-to-year CCR rates since 2010 • Increased CCR students per year in 8th-12th grades who were not previously. • Increased percentage of students enrolling in pathways. • Increased percentage of students entering high school who have met benchmarks. • Increase enrollment in grade-level appropriate courses. • Increased correlation between K-PREP, End-of-Course exams and CCR rates.

Objective	Research Questions	Goal	Measurement
Every student will graduate from high school	a. What graduation rates do we need per school/district per year to achieve goals? (based on likelihood estimates) b. How many students graduate per year since 2010 (measure of percent increase)? c. How many students file Early Grad Intent Forms? d. What indicators exist currently showing number of students "on track" to graduate? How many students meet those requirements? e. What opportunities do schools/districts provide for students who are "off track"? f. What programs or practices are in place for dropout prevention? g. How do schools make decisions (criteria) about grade promotion in primary level? h. What is the impact of early retention (pre-high school) impact dropout rates? i. How do graduation rates vary per school within districts? Between districts? (i.e., where to target efforts to increase graduation)? j. If schools/districts display lower than expected graduation rates, what is their plan for improvement? What does research recommend based on school history and culture? k. How do schools make use of advising, and ILP, to increase graduation likelihood?	Increase the adjusted cohort **graduation** rate from 76% in 2010 to 90% by 2015	Number of first-time 9th graders in fall 2010 (2014 cohort) plus students who transfer in, minus students who transfer out, emigrate or die during school years 2010-11, 2011-12, 2012-13 and 2013-14 **Progress Indicators** State • Increased on-time credit accumulation. • Decreased student dropouts. • Increased use of persistence to graduation indicators. • Increased progress monitoring of on-track grade promotion? • Increased reporting and monitoring of students with transition plans. District and School • Increased number of students in alternative programs graduating

Objective	Research Questions	Goal	Measurement
All students perform at or above proficiency and show continuous improvement	a. Is math focus sufficiently embedded across state-level strategies? b. Are schools and districts providing evidence-based opportunities/programs around math and reading? c. Do schools evaluate student mastery at various points during school year, including (but not limited to) beginning, middle, and end of year? d. Do schools inform parents of student progress relative to grade-level standards, and is this communication provided frequently? e. What triggers response and intervention to student performance by teachers? f. Are students receiving appropriate intervention, and of sufficient frequency, to improve learning? g. What teaching methods are used currently to differentiate learning for various students? h. Which methods show greatest effectiveness based on in-state, other state, and/or research literature? i. What is required to scale up various teaching and learning methods across schools and districts in terms of success rates, support, and cost (e.g., technology, professional learning, cost-benefit ratios)? j. What is happening at transition points that impacts student achievement (e.g., students who transition between schools show lower achievement gains)? k. Of students who achieve proficiency, how many persist in this achievement category across consecutive grade levels? l. How do students using performance assessments compare on K-PREP to students using only traditional assessments?	Increase the average combined reading and math Kentucky Performance Rating for Educational Progress (K-PREP) scores (**proficiency**) for elementary and middle school students from 44% in 2012 to 72% in 2017.	Average combined reading and math Kentucky Performance Rating for Educational Progress (K-PREP) for elementary and middle school students **Progress Indicators** State • Increase in district formative assessment scores in math and in reading per grade. • Increased match in intervention occurrences (type and rate) with student performance per period. • Reduced transition point impact (e.g., 2nd-3rd, 5th-6th, 8th-9th) on learning. District/School • Increased number of students performing at or above PREVIOUS grade standards as measured in beginning of year by district formative assessment (additional data point per student, measure of "summer melt", meet students where they are immediately instead of end of first 6 weeks). • Increased number of students performing at grade-level standards in math and reading as measured by teachers/PLCs every 2-6 weeks per school, district, grade. • Increased parent awareness of student performance status relative to standards (as measured by weekly work sign-offs, report card sign-offs per grading period).

Objective	Research Questions	Goal	Measurement
All students perform at or above proficiency and show continuous improvement	a. How many five year olds live in district and state? b. How does mobility impact readiness? c. Does the distribution of preschool cohorts differ across regions? How? Why? d. What is the distribution of preschool-aged children in each prior setting? e. What is the distribution of gap group student outcomes on Brigance? f. If Brigance performance varies between gap group, what are schools doing for lower performing groups in particular? g. Are interventions used appropriately and with sufficient frequency for Kindergarten, 1st, and 2nd grade students? h. What is relationship between Brigance screener and 3rd grade proficiency? i. Is Brigance correlated with skills needed to meet kindergarten academic standards (i.e., alignment between Brigance and standards)? j. Are Brigance results correlated with kindergarten end of year formative assessment (e.g., MAP)?	Increase the percentage of children **ready for kindergarten** from 49.0% in 2012-13 to 74.5% in 2018-19	BRIGANCE K-Screen composite readiness score, which is comprised of the cognitive/general knowledge, language and communication and physical well-being domains **Progress Indicators** State • Increased number of students in preschool. • Increase in effective preschool programs (e.g., STAR graded). • Increased number of students assessed by Brigance screener. District/School • Effective parent communication • Effective data usage and distribution • Improved formative assessment results (e.g., MAP scores)

Objective	Research Questions	Goal	Measurement
All students perform at or above proficiency and show continuous improvement	a. How are students performing when they enter 3rd grade? b. How many students entering 3rd grade were receiving interventions in prior year? c. How many teachers (schools and districts) know where each student is relative to grade-level standards within each grading period? d. Do schools communicate standards performance to parents on a regular basis? e. Do schools have comprehensive, vertical intervention systems in place? f. Does "true" segregation exist in Kentucky? g. Do students perform better when taught by a teacher that looks like them? h. Is there evidence that personalized learning is positively affecting students in the gap? i. Are resources being leveraged in response to student data to address needs of students in the gap?	Increase the average combined reading and math Kentucky Performance Rating for Educational Progress (K-PREP) scores for **3rd grade** students from 46.1% in 2012 to 73.1% in 2017.	**Average combined reading and math Kentucky Performance Rating for Educational Progress (K-PREP) scores for 3rd grade students** **Progress Indicators** State • (See Goal 3 Proficiency Indicators). • Increased pre-testing of students beginning of 3rd grade year with formative assessments relative to 2nd grade standards mastery. • Increased number of districts and schools tracking 3rd grade performance relative to standards throughout the year. • Intervention tab reports (metrics to be determined) • Financial report card (metrics to be determined) District/School • Increased effectiveness and efficiency in assessment student needs based on off-grade performance. • Increased number of students performing 3rd grade work relative to standards per grading period.

Objective	Research Questions	Goal	Measurement
All students will succeed	a. (See also Goal 3 Proficiency research questions). b. What is population distribution of gap groups? c. Are programs intended for specific gap groups equitable based on gap group distribution per region? d. Within gap groups, are appropriate students (highest risk, most in need) getting appropriate assistance? e. Does any true segregation exist in Kentucky? f. Do students perform better when taught by a teacher who looks like them? g. Is there evidence that personalized learning is positively affecting students in the gap?	Increase the average combined reading and math proficiency ratings for all students in the non-duplicated **gap** group (African-American, Hispanic, Native American, With Disability, Free/Reduced-Price Meals, Limited English Proficiency) from 33.0% in 2012 to 66.5% in 2017.	Average combined reading and math proficiency ratings for all students in the non-duplicated gap group (African-American, Hispanic, Native American, With Disability, Free/Reduced-Price Meals, Limited English Proficiency) K-PREP for elementary and middle schools and end of course for high schools.

Progress Indicators
State • (See Goal 3 Proficiency Indicators disaggregated by GAP GROUPS). • Increase in educators trained in cultural competence (e.g., culturally relevant instruction). • Increase in socio-emotional programs for students to address behavioral impediments to learning. • Inverse correlation between behavior and engagement (decrease in behavior problems, increase in student engagement). • Increase in Tier I, differentiated instruction. • Increased usage of reports on Response to Intervention. District/School • Increased effectiveness and efficiency in assessment student needs based on off-grade performance.

5   Next Generation Professionals

The Next Generation Professional Delivery Plan for 2014 can be referenced here.

Objective	Research Questions	Goal	Measurement
Every student will be taught by an effective teacher.	a. What is the number/percentage of effective teachers statewide? b. What is the percentage of students served by effective teachers by gap group? c. Are teachers professional growth plans aligned with their professional learning needs? d. Is teacher effectiveness positively correlated with student outcomes?	Increase the percentage of effective teachers as measured by **teacher effectiveness** tools from ___% in 2015 to ___ % in 2020. (will be baselined in 2015)	Determined using a matrix that includes multiple evidences of professional practice (classroom observation, student voice, self-reflection, professional growth planning) and multiple measures of student growth (state determined student growth and local student growth goals)
			Progress Indicators
			State • Increased percentage of teachers entering Student Growth Goals into CIITS. • Increased percentage of teachers entering Professional Growth Goals into CIITS. • Increased percentage of teacher observations conducted in CIITS. • Increased teacher ratings on Principal observations. • Increased percentage of teachers who have student voice surveys completed for a class. • Increased percentage of teachers accessing PD360 • Increased percentage of teachers entering self-reflections into CIITS.

Objective	Research Questions	Goal	Measurement
Every school will be led by an effective leader	a. What is the number/percentage of effective leaders statewide? b. What is the percentage of students served by effective leaders by gap group? c. Are leaders professional growth plans aligned with their professional learning needs? d. Is leader effectiveness positively correlated with student outcomes?	Increase the percentage of **effective principals** as measured by principal effectiveness tools from ___% in 2015 to ___ % in 2020. (will be baselined in 2015)	Determined using a matrix that includes multiple evidences of professional practice (School Site Visits, Professional Growth Planning, Teacher Voice, Self-Reflection)using several tools (VAL-ED 360, TELL KY, ASSIST) and multiple measures of student growth (state determined growth and local student growth goals)
			Progress Indicators
			State • Increased percentage of principals with the minimum number of respondents for TELL KY • Increased percentage of principals with the minimum number of respondents for VAL-ED • Increased percentage of principals who entered their student growth goals into KDE's designated electronic platform • Increased percentage of principals who entered their working conditions goals into KDE's designated electronic platform

6 Next Generation Support Systems

The Next Generation Support Systems Delivery Plan for 2014 can be referenced [here](#).

Objective	Research Questions	Goal	Measurement
Use data to inform decision making as well as teaching and learning	a. Do schools and districts understand the criteria and process for program reviews? b. Do school teams have appropriate resources for program review? c. Do program reviews lead to true improvement in program quality? If scores change, is this due to program change or baseline set? d. Are other parts of accountability affected by program review increases? e. How many schools continue to improve their programs once they achieve proficiency? f. How many schools achieve Proficiency on less than 4 standards? g. Do program reviews change quality of teaching? h. Do program reviews change student learning? i. Are schools making program changes based on previous year results? j. Are program review outcomes consistent with TELL KY item results on PD, leadership support, and data usage? k. What is calibration rate between schools and districts on program review criteria and process?	Increase the percentage of proficient Arts & Humanities **Program Reviews** from 31.5% in 2012-13 to 65.8% in 2017-18 Increase the percentage of proficient Practical Living/Career Studies **Program Reviews** from 30.6% in 2012-13 to 65.3% in 2017-18 Increase the percentage of proficient Writing **Program Reviews** from 34.3% in 2012-13 to 67.2% in 2017-18	Comprised of 4 standards (Curriculum/Instruction, Formative/Summative Assessment, Professional Development, and Administrative Support); average each of the characteristic scores; add the 4 averaged standard scores to get a single number; divide by 24

Progress Indicators

State
- Increased teacher effectiveness.
- Increased student achievement.
- Increased quality of program curriculum.
- Increased consistency in school program curricula.
- Increases in other parts of accountability program reviews improve.
- Increased correlation between proficient programs and student achievement OVER TIME.
- Increased number of schools/districts evaluating additional programs per year (beyond required minimum).
- Increased response (adjustment) to programs based on classification results.

Objective	Research Questions	Goal	Measurement
All schools and districts are effective		Increase the percentage of districts rated at or above proficient from 30% in 2012 to 65% in 2017 as measured by the School/District Report Cards.	Determined by calculating the AMO using the Unbridled Learning Accountability Model. The Unbridled Learning Accountability Model can be viewed on the KDE website.
		Increase the percentage of schools rated at or above proficient from 31% in 2012 to 65.5% in 2017 as measured by the School/District Report Cards.	

7 Research Partners

These groups collect data and/or conduct independent analysis for KDE.

Council on Postsecondary Education **(CPE)** Defines and approves all academic programs at public institutions as collects and distributes comprehensive data about postsecondary education performance.

Kentucky Center for Education and Workforce Statistics **(KCEWS)** collects and links data to evaluate education and workforce efforts in the Commonwealth. This includes developing reports and providing statistical data about these efforts so policy makers, agencies, and the general public can make better informed decisions.

Regional Educational Laboratories-Appalachia **(REL)** serves the applied education research needs of Kentucky, Tennessee, Virginia, and West Virginia. REL Appalachia has identified three priority research areas—ensuring college and career readiness, improving low-achieving schools, and supporting effective teachers and leaders. The CNA research team focuses on a targeted research agenda in these areas in partnership with research alliances of state and local school officials in our four states.

Appalachian Regional Comprehensive Center **(ARCC)** at Edvantia is one of 16 technical assistance centers funded by the U.S. Department of Education providing state education agencies in Kentucky, North Carolina, Tennessee, Virginia, and West Virginia with intensive technical assistance to address federal requirements and meet student achievement goals.

Strategic Data Project **(SDP)** is from the Center for Education Policy Research (CEPR) at Harvard University which brings high-quality research methods and data analysis to bear on strategic management and policy decisions to improve student achievement.

Kentucky Center for Mathematics **(KCM)** Designs, conducts, and disseminates mathematics education research to strengthen the foundation of educational practice and policy.

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