PERSONALIZING THE INSTITUTION

A Study of Three JCPS Middle Schools' Efforts to Improve Student Academic Outcomes

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Dana Miller Bullard

Sosepriala Dede

Vanderbilt University, Peabody School of Education

Capstone Study

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Abstract

This mixed-method capstone project examines district-level strategies designed to create a strong sense of belonging and personalized learning in the Jefferson County Public Schools in Louisville, KY. Our research focused on three middle schools, and included a review of JCPS data books, classroom observations, leadership and teacher professional learning community observations, teacher and instructional leader interviews, and document collection. Our findings suggest that: the schools studied have created a well-developed sense of belonging for students even while leadership teams have differing approaches to motivation and creating culture; students are participating in personalized learning, but there is a high degree of uncertainty about the definition of personalized learning among staff; and district administrators conduct reviews and analyses of JCPS data in a consistent and timely manner. We recommend that JCPS develop a consistent platform for personalized learning and communicate the definition and strategies to teachers effectively. Additionally, we recommend that school leadership in the district share current practices *across* and *within* schools in creating a sense of belonging and that they begin to include an additional focus on academic press.

About the Authors

Dana Miller Bullard is the Bureau Director of Innovative Schools and Accelerated Programs for the Mississippi Department of Education. She has worked as the Cambridge International Exams curriculum coordinator in a rural Mississippi school district, a high school English teacher, and an adjunct English instructor in the northeast Mississippi area for more than 20 years.

Sosepriala Dede is the Founding President/CEO of Gateway University, Schools of Applied Sciences, a charter school network that develops career focused, high-tech, & high-touch, early college high schools, that guides individual paths to success through a diverse, accelerated model of hands-on learning, creating a first-class educational platform for all students to define and pursue their own greatness as leaders in college, career, and life beyond. He has more than 10 years of work in the field, as a middle/high school math teacher, an assistant principal, a program director, a principal, and an executive director at the district level.

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EXECUTIVE SUMMARY

Jefferson County Public Schools (JCPS) in Louisville, Kentucky, has 172 schools, 6,400 teachers (84 percent of teachers with a master's degree), and serves just over 100,000 students. It is the largest school district in the state of Kentucky and the 27th largest school district in the United States. Like most large districts in the country, JCPS includes schools that are performing exceptionally well and others that represent some of the lowest performing schools in the state. In fact, four JCPS schools were on Kentucky's Top 10 schools on the 2015 Kentucky Performance Rating for Educational Progress (K-PREP) assessment; The JCPS faculty includes 406 of Kentucky's 1,826 teachers with National Board Certification (22 percent); the district operates 18 magnet schools and 52 magnet programs at all levels. On the other end of that spectrum. JCPS has 19 Schools on the state priority (lowest performing) schools list:

- Four (of 90) elementary schools on the state priority list,
- Seven (of 23) middle schools on the state priority list, and
- Eight (of 18) high schools on the state priority list.

District leaders submitted a request for assistance for a Peabody College capstone project concerning personalized learning in priority schools. The priority schools have a total student population of approximately 16,000, with 84% living in poverty, according to census data. The administration has noted increasing pressure and sense of urgency to turn these schools around.

JCPS requested that we study the impact of personalized learning on student achievement in the priority schools. However, after reviewing the information provided by Jefferson County and studying literature associated with raising educational attainment in priority schools, we found that research indicated three main leverage points: student attendance, sense of belonging (or ethic of care), and personalized learning.

Following an analysis of district and school level data and close communications with district leadership, we narrowed the scope of this project to three middle schools:

- Knight Middle School -priority list
- Lassiter Middle School a socio-demographically similar school not on the priority list
- Western Middle School –priority list

A mixed-method research design was utilized to address the capstone project questions. Surveys were administered to the staff of all three schools to collect data. Interviews and observation data were collected from all three schools. This included interviews with teachers, administrators, and other support staff, as well as observations of classrooms, common spaces, leadership meetings, and professional learning communities. Our qualitative research provided additional insight into the information that was gained from the administered surveys and associated data analysis.

KEY FINDINGS

SENSE OF BELONGING

Finding 1. The schools studied have created a well-developed sense of belonging for students. The strategies used include: justice circles to counter conflict, utilizing student input in school rules, academic houses emphasizing academic achievement and educational attainment, and a robust arts program to encourage self-expression.

Finding 2. The instructional leadership teams in the three schools have markedly different leadership styles with differing approaches to motivation and creating culture. Beginning with a strong sense of moral purpose, these leaders create unique, secure learning environments tailored to the student population.

PERSONALIZED LEARNING

Finding 1. Students are participating in personalized learning strategies through many different platforms. While there are efforts to personalize learning at all schools in a clear and consistent manner, school leadership and teachers have different ideas about the meaning of personalized learning. A high degree of uncertainty exists among staff regarding the definition of personalized learning and associated classroom and school application, leading to a pattern of uneven implementation.

Finding 2. District leaders and school administrators conduct reviews and analyses of JCPS Data Books and other live data in a consistent and timely manner. Teachers are not equipped to unpack the amount of data presented to them while teaching. The anxiety caused by the data overload overshadows teaching and learning in the classroom.

ATTENDANCE

Finding 1. Each of the three schools has made progress in implementing the new district policy regarding chronic absenteeism. Each has adapted procedures to implement the policy fitting to the particular culture and norm of the school.

RECOMMENDATIONS

PERSONALIZED LEARNING

1. Developing a district-wide personalized learning platform

A more specific and uniform definition of personalized learning is needed from the district level which should include specific strategies to be utilized on all campuses in a consistent manner.

2. Supporting Teacher Collaboration

Creating processes and professional development programs that allow teachers to share best-practices with similarly-situated schools would promote more consistent implementation across priority schools, rather than leaving teachers in isolation, and may diminish teacher burn-out.

3. Communicating data

The language surrounding the analysis and synthesis of data is confusing, inconsistent, and anxiety-inducing. District and instructional leaders need a specific and efficacious way to discuss data that will lead to changes in the classroom. We recommend a more robust training of district leaders and classroom teachers in the use of data for continuous improvement.

SENSE OF BELONGING

1. Moving Toward Academic Press

Our findings suggest that some priority schools have developed a strong sense of belonging. We recommend that the instructional leadership take the next step to improve academic press. Now that the schools provide safe, engaging learning environments, learning can take place. Professional development in content areas, with a strong focus on intervention strategies in classrooms, is recommended.

2. Using Time to Accelerate Student Achievement

We recommend calendar revisions for struggling schools that lengthen the academic calendar from a 10-month to a 12-month calendar/contract, particularly for leadership teams. Our findings suggest that the 10-month calendar has a deleterious effect on the district's ability to plan projects for the upcoming academic year and professional development for staff.

3. Sharing Best-Practices from Leaders

The district has dynamic instructional leaders who should be sharing ideas with other district leaders. To scale up good practices already taking place in schools, the leadership must have time to engage in professional learning communities *across* the schools, and *within* schools.

FLEXIBILITY FOR EVALUATING SCHOOLS

The No Child Left Behind (NCLB) Act of 2001 was most widely known for its ambitious goal of having every school proficient in reading and mathematics by 2014. Using the state testing data, NCLB also established how schools were identified as failing schools. Because the standards were so high, as early as 2005 districts and schools began to apply to the US Department of Education for ESEA

waivers from the punitive and politically damaging rigidity of NCLB.

If even one of a school's targets is not met, the school is identified publicly as failing. Schools that are identified as failing are required to implement a series of interventions that increase in severity over several years. Without the ESEA waiver, districts would be required to transfer students upon parent request.

In a state like Kentucky, this is significant. Under the legislation of NCLB, the target was that 100% of students would demonstrate proficiency in reading and mathematics—meaning that failure to meet just one target would result in a school being labeled as failing. This would likely result in all of Kentucky schools and districts being labeled as failing.

As a condition of the Elementary & Secondary Education Act (ESEA) Flexibility Waiver, the Kentucky Department of Education identified Priority and Focus Schools. **Priority Schools**

Priority Schools are identified by the KDE by matching any of these three descriptors: 1. Not meeting AMO (Annual Measurable Objectives) for three consecutive years; 2. Performance in the bottom 5% of schools in the State, or 3. A less than 80% graduation rate.

Focus Schools

Focus schools have low performing gap-groups. These schools have a non-duplicated student gap group score in the bottom ten percent of non-duplicated gap group scores for all elementary, middle and high schools; schools with an individual student subgroup by level that falls in the bottom five percent for individual subjects; and high schools that have a graduation rate that has been less than eighty percent for two consecutive years.

Transformation Schools

Transformation Schools have experienced at least two consecutive years of not meeting AMO and are performing in the bottom 20% of the state. These schools are monitored and supported by the JCPS Priority Schools Office.

PROJECT QUESTIONS

While the ESEA flexibility waiver provided new, more flexible parameters in which states could operate, it identified those schools that were both focus and priority. For JCPS, priority schools are center stage with an emphasis on what mechanisms should be employed to turn around these schools' performances. Our capstone project analyzes the policies, procedures, and practices employed in three JCPS middle schools for accelerating student's achievement, and addresses three capstone questions:

Project Question 1. Sense of Belonging: What is the nature of and important characteristics implicit in systems and structures that ensure a sense of belonging by all students and staff?

- How do key stakeholders perceive these systems and structures?
- What academic effects do these systems and structures produce?

Project Question 2. Personalized Learning: What is the design of the systems and structures implemented to deliver personalized learning for students?

- How do key stakeholders perceive these systems and structures?
- What academic effects do these systems and structures produce?

Project Question 3. Attendance: What is the design of systems and support structures that ensure high attendance rates?

- How do key stakeholders perceive these systems and structures?
- What academic effects do these systems and structures produce?

CONTEXTUAL ANALYSIS

BACKGROUND

Jefferson County Public Schools (JCPS), in the Metro Louisville area, is the most diverse and largest school district in Kentucky. JCPS serves about 15% of the total K-12 student population in Kentucky, roughly 100,000 students. Serving a large percentage of students who are eligible for free and reduced lunch, JCPS has maintained its desegregation efforts after the Supreme Court ruling in 2007 that forbid the use of race as the sole factor in student assignment (Parents Involved in Community Schools v. Seattle School District No. 1, 2007). To continue efforts to integrate students, the district has a robust system divided into geographic clusters that contain diverse populations within the neighborhoods. Each cluster has assigned schools (elementary, middle and high) that the students within the cluster attend. Students list their preferences within the cluster and they are assigned to a school based on a combination of choice, socio-economic factors, race, and adult educational attainment. Student also have options to apply to magnet schools that are outside of their neighborhood cluster of schools.

A recent change in the student assignment plan brought about unintended consequences in 2014. Along with the change in the district plan for integration, there was also an increase in

free and reduced lunch eligible students, an increase in limited English proficiency students, and a concentration of these students in the West urban area of the city. For this reason, schools in those geographic clusters have struggled to desegregate their campuses. The busing program was recently challenged during this Kentucky legislative session; however, a bill to eliminate busing due for a vote on March 31, 2017, did not make it to the floor for a vote.

The demographics of the JCPS schools are diverse at the student level. JCPS students come from all backgrounds: 47% White, 37% African-American, 9% Hispanic, 3% Asian, and 4% identify as other ethnic minorities. There are 70,000 school bus riders in the district, 12,400 ECE students (students with disabilities), 123 languages spoken, and 64% of all students are eligible for free and reduced-priced meals.

With 19 persistently low-performing priority schools, district leaders believed priority schools were an appropriate place to focus. The priority schools have a population of approximately 16,000 students, with 84% living in poverty. The administration felt an increasing pressure and sense of urgency to turn these schools around.

Our primary contact with JCPS at the district level communicated the history of priority schools in Jefferson County and of the robust data system that the school district manages. As a district, JCPS gathers extensive amounts of data throughout each school year. The priority schools in the district create quarterly reports of student achievement data each year; there was a district level audit using data from nine of the priority schools during the 2015-2016 school year, which was delivered in March 2016; the Kentucky Department of Education (KDE) conducted an audit of six of the 18 priority schools during the 2016-2017 school year; there are existing 30/60/90 plans in each of the priority schools; all schools have historical and current survey data from parents, teachers, and students; and the district administration and staff participated in a self-assessment in February 2016.

Along with this data, Kentucky Department of Education conducted a District Diagnostic review in April of 2016 using the framework of the AdvanceED Standards: (1) purpose and direction; (2) governance and leadership; (3) teaching and assessing for learning; (4) resources and support systems; and finally, (5) using results for continuous improvement.

The district administrator expressed his concern about the stakes involved in this capstone project. Two principals were replaced in the 2015-16 school year due to low ratings on the KDE audit. He also expressed his concern that students were being underserved by limited "differentiated supports" implemented in schools with high concentrations of students in poverty. He is very committed, while cognizant of the enormity of the consequences both professionally for administrators and personally for the students, should the schools remain too long in priority status. He, along with several other administrators who were recently hired, have begun to implement the new strategic plan for JCPS schools, "Vision 2020: Excellence with Equity."

A story in Louisville's WDRB.com *Sunday Edition* illustrated the desperate situation facing some of the schools. On July 24th, 2016, the headline was "Stakes are high as JCPS overhauls two struggling middle schools." The superintendent and school board voted to merge two priority schools onto one campus. The consolidation of Stuart Middle and Frost Middle, both priority schools (along with two separate administrative staffs) seemed rushed to many parents interviewed. A school board member, David Jones, voted for the merger of the schools, but only after he was assured by the superintendent that there would be one person in charge of the campus.

"We need one throat to choke," Jones stated in a March meeting. "Who is going to be in charge of this project? So that if it comes up, we don't have everybody pointing fingers?"

With this atmosphere, our concern was that embarking upon a study of new, disconnected data would only add to the massive amount of data already at JCPS's disposal. The need to study and analyze 5-year trends seemed imperative to have a more comprehensive perspective.

The KDE diagnostic review for April 2016 included 6 of the 8 middle schools that are currently on priority status: 6-12 Moore Traditional (middle school section), Thomas Jefferson Middle, Westport Middle, Stuart Middle (new principal in 2016-2017, reconfigured school), Western Middle, and Olmsted North Middle. The KDE identified five priorities for improvement in those school systems (which have been abbreviated below)

- 1. Create and implement an effective process to consistently monitor, support, and evaluate teachers in the use of instructional practices.
- 2. Develop, implement, and monitor a process for collecting, analyzing, and using student assessment data to monitor and adjust curriculum at the school level.
- 3. Examine current policies and practices related to recruiting, hiring, transferring, and retaining teachers. Develop and implement an innovative plan to improve teacher retention and increase teacher capacity.
- 4. Implement and monitor an "instructional process" ensuring a rigorous curriculum and student engagement in the learning process.
- 5. Improve student engagement by moving away from teacher-centered whole-group instruction.

SITE SELECTION

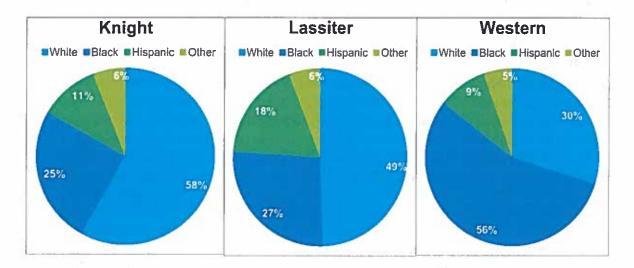
In the JCPS district, 2% of the elementary schools are priority schools; 35% of middle schools are priority schools; and 44% of high schools. Along with this, there is an attendance pattern which shows a large gap between attendance at priority schools and attendance at non-priority middle schools that is not present between priority and non-priority elementary schools. The teachers with the lowest average number of years' experience throughout JCPS are teaching in priority middle schools. These data portray a vulnerability for students in priority middle schools during a very challenging time. The students are choosing not to attend at higher rates than non-priority, and when they are attending, the teaching staff is less experienced – on average – than other teachers throughout the district.

Interestingly, other data points demonstrate that priority and non-priority middle schools are strikingly similar. In fact, the differences in priority and non-priority schools are lowest in key areas at the middle school level: the mobility rate gap between priority and non-priority schools; the free and reduced lunch percentages gap; the gap between students performing at novice level in academic performance; and the gap in teacher retention – are the lowest between priority and non-priority at the middle school level.

The data paint a compelling case to focus in on the middle school level. With the teacher population (both in education and experience), student mobility index, novice level, FRL gap at the lowest in the middle school, and yet the attendance and subsequent performance varying greatly, examining these schools showed promise for revealing avenues to change. Finally, the decline in student attendance at the end of the middle school seemed to be a relevant factor in student outcomes when considering students at risk of dropping out.

K-Prep achievement data, demographic data, socio-economic data, geographic data, and complete data books were analyzed in all potential middle schools in the district. We were also guided by priority school district leadership which advised that we explore the personalized

learning strategies at Knight Middle School, a priority middle school. Because of the academic performance of Western Middle School for the 2016 school year, Western Middle (priority school) was also chosen as a site school. Based on our analysis of demographic and academic performance data, Lassiter Middle School (focus school) was chosen as a non-priority school to highlight differences in funding and district level support.



KNIGHT MIDDLE SCHOOL

For historical context, Knight Middle was identified as a priority school in 2011 with new leadership employed in April of 2014. The school has remained out of the bottom 5% for the past 4 years and has met AMO for the past 2 years; however, they did not meet AMO for 2015-2016 and remain on the priority school list.

Knight Middle School is a priority middle school with 414 students, 78% of whom qualify for free or reduced lunch. The school population consists of a large majority (86%) of students who reside within the boundaries of the school cluster. According to the latest figures, in the academic year 2016-2017, 44 students transferred out of the local school district to attend magnet schools in JCPS. Knight has been in the "needs improvement" category since being listed as a priority school. The leadership, behavioral intervention plan, and the teaching staff underwent major changes in the 2014-2015 school year.

The feeder elementary schools for Knight are Blake, Blue Lick, Gilmore Lane, Indian Trail, Laukhuf, and Slaughter. Both Blake and Blue Lick are currently listed as Transformation Schools, having not met AMO for the past two years and both performing in the bottom 20% of schools in the state.

LASSITER MIDDLE SCHOOL

While Lassiter Middle School is not a priority school, the students share similar demographic characteristics to Knight. The percentage of students who qualify for the free and reduced lunch program is 78%. Lassiter is also similar to Knight in that it consists of a large percentage of students who reside within the boundaries of the school. Lassiter is the largest school in the study, with a student population of approximately 900 students this year. In 2011-2012, the district hired new leadership for the large middle school, which in turn has led to

changes in the climate, culture, and safety at the campus. The school is currently labeled as a school that "needs improvement;" however, it is not a designated priority school.

None of Lassiter's feeder elementary schools are listed as transformational or priority schools. They are Auburndale, Coral Ridge, Fairdale, Jacob, and Minors Lake. However, the high FRL level of the students and the percentage of resides students points to Lassiter as an appropriate contrast to the priority schools in the study. Because Lassiter provides a magnet program, the school also shares some characteristics with Western Middle.

WESTERN MIDDLE SCHOOL

Western Middle is a priority school that is also an arts magnet school. Although it is low performing academically, it does not currently share similar demographic characteristics with the other schools in the study. Prior to 2009, Western Middle was not a magnet school. The school consisted of a majority of students who resided within the school boundary, like Knight and Lassiter. In 2009, however, the magnet program within the school was scaled up to whole school, which included an application process and an audition for students desiring to attend. Also in 2009, new school leadership was hired and tasked with transforming the school.

As an arts magnet, Western has the potential to draw students from other school boundaries. Currently only 16% of students reside within the boundary of the school. The feeder elementary schools are Byck, a priority school, and Wheatly, a transformation school. However, 84% of Western's student population is chosen through an application process. For this reason, the demographics and economic factors of the families of students have changed. In 2013, 82% of the students qualified for the free and reduced lunch program; that percentage has decreased every year for the past 5 years. This year's percentage of qualifying students is 65% (which is equal to the JCPS average for middle schools). The 2016 data from academic assessments designated this school as a "priority/high progress school" that is "proficient/progressing."

METHODS

To answer our project questions, we relied upon a mixed-methods design which employed both qualitative and quantitative strategies. The mixed methods design allowed for elaborating and describing results from quantitative data analyses and results generated from qualitative interviews and observations. This method assured that we addressed overlapping phenomena, explored different facets of attendance, sense of belonging, and personalized learning, and enhanced the interpretability of this study. We were also able to develop a more complete, enriched portrait of these mechanisms in the studied schools.

The study was limited to data from the past five years, beginning with data from the 2012-2013 academic year. The quantitative strategies included studying the JCPS climate surveys administered to teachers, students, and parents; analyzing the inventory of student demographics, academic performance, attendance rates, and behavioral data; and reviewing teacher and school administrator data such as demographics, retention rates, education level, year experience, and type of license.

In addition to the quantitative efforts, there was also extensive qualitative analysis. Our qualitative strategies included semi-structured interviews with teachers and administrators at each priority school and with administrators at the district level; classroom and general school

observations; and observations of PLCs and leadership team meetings at the schools.

After examining the data for trends, the research team's fieldwork focused on school visits and interviews. The intention was to investigate differences in school learning communities to distinguish between the schools. According to the review of literature, as well as the recent KDE audit, it appeared that there may be differences in attendance patterns, in student engagement, in the sense of belonging by both students and teachers, in personalized learning, and in the type of curriculum and expectations by teachers.

DATA COLLECTION

The research team consulted the data contained in the online, publicly-accessible JCPS data books to find school and district level quantitative data, ranging from student descriptive statistics to yearly comprehensive surveys of students, teachers, and parents. We also visited each school site for class observations, teacher and administrator interviews, and artifact collection, and conducted an online survey concerning classroom teacher knowledge and implementation of personalized learning strategies.

QUANTITATIVE

JCPS gathers extensive amounts of data throughout the school year. The JCPS data books, compiled each year, contain data in four areas: academic, non-academic, demographic, and school climate (Appendix A). The academic data stems from the yearly assessments given in the state and district to determine growth, as well as college and career readiness indicators. Non-academic data includes attendance rates, retention rates and behavioral data. Demographic data includes the descriptive statistics for students and teachers. It also includes data concerning parental involvement through PTA and parent-teacher conferences. The school climate data includes student and parent satisfaction rates, as well as the response rates for the year. This data proved invaluable as we searched for trends in enrollment, demographics, absenteeism, teacher retention, suspension rates, indicators of poverty, and parent/student satisfaction during the years 2013 through 2017.

JCPS data books contain a robust amount of information pertaining to each school in the district. The research team closely examined this data both prior to the site visits and after to better understand the nature of systems and supports employed at each school site. Our research team also collected documents while conducting our interviews and site visits, which included school calendars, master schedules, worksheets being used in class, meeting agendas, PLC notes, and other such materials.

In addition, the research team began our exploration of the comparative schools by studying the quarterly data for priority and focus schools in the district; a district level audit of 9 priority schools in 2015-2016; the 30/60/90 plans that were in place in the priority schools, and the district administration and staff self-assessment conducted in February 2016. We also studied Kentucky Department of Education's District Diagnostic review released in April of 2016 using AdvancED's framework: purpose and direction; governance and leadership; teaching and assessing for learning; resources and support systems; and using results for continuous improvement. A robust review and analysis of these reports confirmed our choice of schools and targets of study.

QUALITATIVE

To understand the local context of the quantitative analysis and to focus on the issues of chronic absenteeism, sense of belonging and personalized learning, the research team visited Knight Middle School, Lassiter Middle School, and Western Middle School in January 2017. During the visit, we observed 20 classrooms, conducted 34 interviews with teachers and administrators, and observed professional learning communities in each school. We also met with a district administrator at Lassiter and a school board member at Western.

SCHOOL VISITS

The research team conducted school visits over the course of three days. One full day was allotted for research at each respective school, with researchers arriving by 8:30am and conducting interviews and observations. At each school, we interviewed as many teachers as possible with an emphasis on teachers in core content subjects, English, math, history and science. We also sought to interview key leadership and support staff as they were available throughout our visit. Interview sampling for all staff members at each school functioned on availability and convenience because of staff absences, substitutes, and various other activities going on in the building at the time of our visit.

While visiting each school, the team observed the flow of students in the hallways, the

While visiting each school, the team observed the flow of students in the hallways, the interaction between administrators and teachers, administrators and students, and teachers and students. We also photographed evidence of signage indicating the absentee policy and positive behavior reward systems. The documents in the school offices provided brochures, student handbook rules, extra-curricular activity choices, and community wrap-around services that were available to students and parents. Administrators also provided applications and marketing materials for the arts magnet school; the extensive behavioral intervention curriculum at Knight; and information concerning cultural events at Lassiter.

SCHOOL OBSERVATIONS

Classroom observations and general, school-wide observations (hallways during transition to and from classrooms, observations of physical space, layout, decorations, etc.) allowed for a more dynamic view of attendance patterns, sense of belonging, and personalized learning. They also enhanced both the quantitative data gathered as well as the interview data gathered.

The research team conducted 20 observations at our three school sites. The observations, like our interviews, focused on evaluating elements of personalized learning, sense of belonging, and attendance. Our classroom observation protocol included a checklist for indicators of absentee and tardiness procedures in the class, sense of belonging indicators, and personalized learning strategies (Appendix B). The same instrument was used by both team members in various classrooms. Once the observation data was collected, the team transcribed the information into matrices for each campus. These were analyzed categorically into indicators of absentee/tardiness reduction, sense of belonging, and personalized learning.

At each school, we observed professional learning communities, which granted insight into the organizational structure at each school. We were also able to ascertain differing leadership qualities in the teams, as well as the communities created by the leadership, which lead to different local teaching and learning climates. Two of the PLCs were with teaching staff

and one of the PLCs was an administrator group. The research team has reviewed the notes and artifacts from each meeting to analyze differences in leadership at the schools.

STAFF INTERVIEWS

Semi-structured interviews were utilized. The time for each interview was approximately 20 to 30 minutes. The interviews provided the research team individual accounts and interpretations of attendance patterns, sense of belonging, and personalized learning at their respective schools. A total of 34 interviews were conducted at our three host schools, with approximately 10 per school.

The interview instrument was designed using relevant literature around the themes of chronic absenteeism, sense of belonging, and personalized learning (Appendix C). The themes were consistent with the themes used for school and classroom observations. All interviews were conducted in quiet places within the school, providing a safe, and comfortable environment that allowed staff to communicate openly and freely. Interview participants were given a disclosure form and a consent to be recorded as all interviews were either recorded electronically, transcribed by hand, or both. The research team debriefed at the end of each day to determine if any themes or observations were beginning to emerge.

The semi-structured interviews were transcribed and analyzed by the team. Although we asked questions surrounding our themes of chronic absenteeism, sense of belonging, and personalized learning, we allowed other topics to surface in discussion to ensure that we captured any trends in the local context of the school, as well as any themes that emerged at all three sites.

The research team shared the data collected from the site visits and discussed trends and findings in our qualitative and quantitative data. Our system of sharing was through online shared folders for our documents and phone conferences as we delved deeper into the themes that emerged from the synthesis of the quantitative and qualitative data.

DATA ANALYSIS

The data gathered from the qualitative and quantitative research were analyzed, described, and interpreted in a systematic way to transform and organize the data into a format to permit inferences, assess relationships and patterns within the data sets, and generate and validate interpretations, inferences, and conclusions of the research. The qualitative analysis synthesized the data from observations and open-ended, semi-structured interviews. The quantitative data analyzed the data gathered from the JCPS climate surveys as well as data gathered from the district data books. This parallel analysis of observations, interviews, data analysis and surveys allowed for a more complete look at the phenomena and was utilized to strengthen reliability and validity.

INTERVIEWS

The research team transcribed and coded the interviews according to our conceptual framework for the project searching for key themes. The initial goal was to identify concepts and discover any properties or dimensions of the data including naming and categorizing elements of the data. The data were broken down into discrete parts, closely examined, and compared for similarities, differences, and relationships among categories. The recurring regularities from the data were condensed into themes which were examined for interconnected and interrelated

subjects. The research team began to formulate carefully considered judgements about the phenomena as revealed by the data (Patton, 2003, page 467).

OBSERVATIONS

Observations were conducted to provide contextual information needed to clarify data collected using other methods. This allowed the research team to understand the substantive significance of the context, environment, events, activities, interactions, and processes used within the school related to personalized learning, sense of belonging, and attendance. The synthesis of the classroom and school-wide observations provided clear insights into how different participants were behaving and interacting.

This analysis also enabled the team to discover phenomena that were overlooked by participants in the learning and teaching context. The perceived lack of importance of the phenomena by participants may mean that they would not be ascertained without considered deliberation. The aggregate of the observation data led to the emergence of themes around research questions which were analyzed in conjunction with all other data sources including interviews, data book analysis, and survey data to see if there was a common pattern.

DISTRICT DATA BOOKS

The data books and documents provided comprehensive quantitative data regarding each school's demographics, academic performance, and climate. The demographic, achievement, and survey data provided a strong framework for the qualitative data that was gathered during interviews and observations. It also pointed the research team to areas of relevance at each school site regarding policy or procedural differences that could affect personalized learning, sense of belonging, and attendance. Importantly, the historical data was mined for trends in enrollment, behavioral incidences, student and teacher attendance rates, and in demographic shifts which supported our qualitative findings.

KEY FINDINGS

SENSE OF BELONGING

The schools studied have created a well-developed sense of belonging for students. Each school has adopted a context-specific set of strategies to accomplish these goals and organizational changes. The strategies include: restorative justice circles, student input in school rules, academic houses emphasizing academic achievement and educational attainment, and a robust arts program to encourage self-expression.

Sense of Belonging, or as Murphy (2014) explains, Ethic of Care, is an important aspect for student academic achievement, as well as social and emotional well-being. Because sense of belonging had not been clearly defined and its importance not established, it had often been considered a good thing to have at a campus, but not a *necessary* element in education. Murphy (2009) argues that the ethic of care is a necessary component of education. Teachers and instructional leaders must identify norms that create a sense of belonging so that they can go about strengthening and expanding the culture of care beyond one school. School and district leaders need to move sense of belonging from isolated incidences within the district to a district-wide system.

According to Murphy & Torres (2014), there are four norms that must be present to

create an ethic of care: care, support, safety, and membership. Care can be assessed through observations by students and peer educators. It is present when teachers and leaders are working to the best of their abilities, challenging their students, sharing themselves with their students (authentically), knowing their students well, valuing their students, demonstrating an interest in the lives of their students and investing themselves, being accessible to their students in nonacademic roles, seeing through the eyes of their students, establishing their trustworthiness to students, respecting their students, treating their students fairly, and providing meaningful recognition to their students (Murphy & Torres, 2014).

The norm of support overlaps significantly with the actions describing the norm of care. Both of these norms emerge from high teacher expectations based on respect and love for students, and the investment in supporting their student until they are successful. Evidence of the norm of support is found in observing teacher providing assistance to students including in areas unrelated to academic matters, offering encouragement to students, ensuring the availability of safety nets for students, monitoring their students closely, mentoring students through success and failure, and advocating for their students (Murphy & Torres, 2014).

Safety is established by a principal who is personally involved with the students and takes time to speak to students informally and directly, who focuses on preventative measures to protect students in a systemic way. The instructional leaders and teachers provide a positive, rather than punitive focus on student behaviors. According to Murphy & Torres (2014), this takes place when leaders value the academic engagement of students, and create shared development and ownership of the school. A place of safety includes a school with an appealing physical space.

Membership is an important norm in creating a sense of belonging. It is one often overlooked in creating a culture of care in schools. To truly have a sense of belonging, all participants – leaders, teachers, staff, and students – must have a stake in ownership. involvement, and accomplishments of the school. To build this, leaders must give students a voice in creating the culture of the school. Attendance at school, participation in extra-curricular activities, and academic success and pride are indicative of good school culture.

Each of the middle schools in our study has successfully changed the culture at the school. In 2009, Western Middle was transformed from having an arts magnet program within the school with a small number of students to a true arts magnet school while increasing enrollment and academic achievement. Lassiter Middle began to change in 2011-2012, According to teachers, the school culture was creating a dangerous learning environment. Currently, the staff, with new leadership, has created a safe learning environment with a focus on academic attainment. Knight Middle School began to change culture very recently in the spring of 2014.

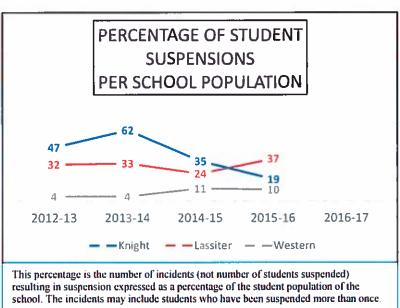
KNIGHT: NORM OF CARE AND SUPPORT

In April of 2014, Knight Middle made sweeping changes concerning school culture and sense of belonging. Since the new principal was hired at the end of the academic year, she immediately began a listening tour with her students and staff. Using the student and staff input. the school began to change the way it treated students. A new school handbook and new school procedures for transitioning between classes created a culture where student felt valued. With a new, young teaching staff and a new code of conduct for the school, Knight began the 2014-2015 school year with a focus on building relationships with students to engage them in learning.

The staff also began a proactive role in community and neighborhood visits to invite the new 6th graders to their school. Along with those changes, a support person was appointed to be responsible for family communication when students were at risk of becoming labelled chronically absent.

Most importantly, the school invested in a strong behavioral intervention program with explicit training for teachers and students. In observations in the hallways and in classrooms, the research team did not hear teachers yelling at students. The campus culture was one of support, care, and respect.

Knight Middle also began using restorative justice circles to resolve conflicts. Conflicts or unresolved issues between students, or teachers and students, or teachers, are resolved in discussions. Although the research team did not observe one of these sessions personally, we heard from several faculty and leadership team members concerning different uses. Because the groups are flexible and easy to implement, they have been very useful to staff and students. The justice circles



can be planned in advance to explore issues of fairness in student policy, or they can be impromptu if there is a conflict in the hallway between classes. Teachers also confided that the justice circles had been used to resolve differences between staff members to find well-mediated solutions.

LASSITER: NORM OF SAFETY

Although not a priority school, Lassiter is similar to Knight in many ways. Both schools are not magnet schools and have student populations that are from families who are socioeconomically distressed. The free and reduced lunch rates at both schools are higher than the JCPS middle school average.

According to teachers at Lassiter, the school had become more dangerous until the district hired the new principal. Teachers entered and left the building in pairs. Teachers' tires were slashed. Although there were islands of safety and academic rigor, the new principal unified the teaching staff and supported them in creating a more academically focused campus.

Several of his initiatives to build a better sense of belonging include adding athletic teams and cheerleading squads to the extra-curricular choices for students. The student population is also divided into "houses" within the school. Each of the houses are named for institutes of higher learning to introduce and reinforce college-going expectations. Since the house memberships change each year, students are exposed to 8 different colleges and universities during their tenure at Lassiter. The school's discipline referrals have been trending down and

school enrollment has increased through the past five years.

WESTERN: NORM OF MEMBERSHIP

Western Middle has a large staff of instructional leaders to support teachers in the school. The research team attended a leadership meeting as they discussed supports for teachers in the classrooms. Western's leadership team discussed excerpts and rubrics from Robyn Jackson's *The Instructional Leader's Guide to Strategic Conversations with Teachers*. Along with the school instructional leaders, Western also employs a prior principal as an interventionist to build the schedules for the school. While we visited, a school board member was on campus to support the administration.

Students are divided into small advisory groups and assigned to teachers, staff, or administration to meet weekly to discuss issues or learn positive behavioral strategies from the group. These groups are called M & Ms (Mentors & Mentees) and focus on soft skills that students need for social development. Students also go through a goal setting process to ensure that they are actively engaged in their educational outcomes. For academic personalization, the students are scheduled to work in the computer lab every other day to increase literacy and math skills. Interventionists assign Study Island and SRA which is targeted to the students' skill level for enrichment and remediation for all students in the afternoons.

The sense of belonging at Western is very strong. Since students must be admitted through application and audition, the students are already engaged in the culture when they get to campus the first time. Studying at Western allows them the opportunity to be academically and artistically successful. The school allows student artistic expression to be part of the school culture. This was evident to researchers in student dress and in student art adorning the hallways.

Finding 2. The instructional leadership teams in the three schools have markedly different leadership styles with differing approaches to motivation and creating culture. Beginning with a strong sense of moral purpose, these leaders create unique, secure learning environments tailored to the student population.

While the quantitative data painted a similar portrait of these struggling middle schools in JCPS, our team found very different school climates in our site visits. Although the three schools have student populations that are similar, the learning environment of each is distinct. These distinctions are specifically tied to the leadership characteristics embodied by the principals as well as the leadership teams surrounding them. Based on the school climate surveys, each of these leadership changes dramatically altered the learning environments at the schools. Beginning with new leadership chronologically, the principal at Western Middle began in the fall of 2009; Lassiter received new leadership in 2011-2012, and finally, Knight brought in a new principal in April of 2014.

WESTERN: COLLABORATIVE MODEL

In 2008, Western Middle's student body consisted of a majority who resided within boundary of the school and who enjoyed the small arts program at the school. In 2009, to turn around the climate and academic performance at the school, the district changed the leadership and vision for the school. Western became a district-wide arts magnet school, opening an opportunity for students throughout JCPS to apply. The district climate survey shows that in 2008, 53% of the students disagreed with the statement, "I would rather go to this school than

any other school." The attendance rate and academic performance suffered because of this negative view of the school.

In 2016, after becoming an established arts magnet school, Western experienced much lower chronic absenteeism rates, higher academic achievement, and the student climate survey had dramatically changed for the better. In 2016, 68% of the students agreed that they would rather attend Western than any other middle school. In fact, all of the climate survey data supports that students chose to attend, enjoyed going to school, and felt safe. Strikingly, 84% of the students agreed that they "belong" at Western. The sense of community and support have been spearheaded by the leadership team at Western, which also has a large amount of district support.

Western's leadership team embodies the tenets of collaborative instructional leadership. Not only does the leadership staff actively support the teachers, they also continuously study and revise targets for their school programs. During our team visit, Western's leadership team, consisting of the principal, two assistant principals, two counselors, a retired administrator who was working part-time, a school board representative, and several administrative assistants, were conducting a PLC reviewing *The Instructions Leaders Guide to Strategic Conversations with Teachers*. Not only were they studying the material, they were actively assessing the strengths of the teaching staff and learning new ways to support teachers who were struggling.

The leadership team was focused on the six improvement priorities that they had set for the academic year. Leadership spoke often of the "beautiful and brutal" facts, meaning that they looked at the data carefully and did not make excuses for the results. They spoke openly about the issues facing the students and the school. The leadership has focused on cultural/social change and expectations from students, and has begun moving toward more academic expectations. Virtually each teacher and leader repeated the quote, "Students do not care what you know until they know that you care." The school has embraced the district led initiatives: M & Ms, a mentor and mentee program to ensure that students are developing relationships with adults in the school, and WIN, "What I Need," a small intervention group for students who need behavioral support.

A major obstacle to Western's academic performance is the teacher shortage. Western has a very young staff and has had difficulty filling academic positions. In the classrooms we visited, the rigor was low and students were not engaged. They were engaged in their arts classes and were excited to be at school; however, the academic rigor was not in keeping with the rest of the atmosphere of the campus. In teacher and administrator interviews, the concept of personalized learning centered around the use of online technology to target instruction for students. Western sets aside time for students to go to enrichment arts classes or to intervention using Study Island, SRA, or Compass Learning. When asked about how students were placed into intervention, the teachers said that assessment data was used to "triage" the students; then they were placed accordingly.

Western stood out from the other schools in its use of time. The schedules at Western were the most complex of any other school. The school schedule was composed of about 12 staggered schedules to maximize instructional time for students who need the most support. This creative scheduling diverged significantly from the other school schedules that may have been, according to Murphy and Torres (2014), "organized as though relationships are not only unimportant and irrelevant, but an obstacle to efficient operation." There were alternative block schedules for each grade level with built in remediation time. The schedule also rotated each 6-week grading period to ensure that students had the opportunity to have academic classes at

prime times during the day.

According to the leadership team, their top priorities were creating a culture of academic achievement and continuing to build close relationships with the students and their families. The obstacles to academic achievement were the lack of teachers and the lack of teacher motivation and/or skill. According to the leadership team, Western also has had an issue with teacher attendance. To combat this, the team has begun to prioritize developing teacher leaders and ensuring that teachers have the tools that they need to teach effectively.

The sense of belonging that the students felt at this school has led to low chronic absentee rates, low disciplinary action, and better academic outcomes. The sense of belonging, while felt by leadership and students, did not seem to be shared with the teaching staff. The teachers did not seem to have responsibility and ownership in the leading of the school. While they were included in the systems for caring established by the leadership, that same network of caring did not seem to extend to the teachers themselves.

Because of the nature of being a magnet school with a large application rate and the caring, systematic leadership, Western Middle School is a school where students feel safe and feel as if they belong. This culture of care has led to Western's designation as a "high performing" priority school with the chance to exit priority status in 2017. This school is moving toward a more systematic academic press.

LASSITER: TRADITIONAL MODEL

Lassiter is the largest of the three schools we studied; it is also the only non-priority school. Lassiter Middle School has a more traditional type of leadership that was established in 2011. In an interview with an 18-year veteran teacher at the school, the difference that the new principal made was instrumental in saving the school. He told of the issues before the new principal when teachers were asked to leave the building in pairs each evening to avoid danger. Students were in charge of the school and it was not a safe environment. Along with the issue of safety, the scheduling at the school was arranged to maximize the efficiency of serving lunch to the children. The instructors taught all children each day, and classes were often so short that lessons could not be completed. The new leadership, while strict at first, altered the way the school was perceived by the community, the teachers, and the students.

The houses are named for institutes of higher learning to introduce and reinforce college-going expectations.

Since Lassiter is not a priority school, the spending per pupil is approximately \$2,000 less per student than if it were a priority school. Without the money in the budget for more support staff, Lassiter's leadership looks much different, in that there is no team. The efforts to create a culture of academic achievement and sense of belonging are focused mostly on academic rigor. This intense focus on academic achievement was not observed in the other schools. Even the methods to make students feel a part of the student community were based on academic

attainment goals.

Like the other middle schools, Lassiter has established "houses," smaller communities within the school to which the students belong. At Lassiter, the houses are named for institutes of higher learning. The incoming 6th graders are divided into three groups: Harvard, Yale, and Princeton. The 7th graders are placed in Vanderbilt, Cornell, or Dartmouth. And the 8th graders are divided into Oxford or Cambridge. When the students are grouped, they learn about the universities, their mascots, their fields of study, and their locations. The students are given t-shirts that represent their college that they are allowed to wear with their school uniforms. The houses compete using academic, behavioral, and attendance data.

Although the leadership has the structure of a traditional hierarchy, the principal is an engaged instructional leader. The research team attended a 6th grade ELA and social studies PLC with the principal. He was very involved and knowledgeable about the core content. The focus of the PLC was the rigor of in-class lessons. There was also a deconstruction of a writing assessment to evaluate whether it reflected the skills that the students needed to practice. The teachers collaborated to ensure that social studies and English classes held the same writing expectations for students.

During this academic year, the leadership has been more focused on building a caring and engaging school community. According to the climate survey from 2016, a majority (55%) of the students do not enjoy going to school. In fact, 51% would prefer to go to any other school, rather than Lassiter. While the climate surveys were not much better prior to the principal's arrival, the students' attitude toward school obviously influences their attendance and academic achievement. In fact, the chronic absentee percentage has been increasing slightly through the years, culminating in 10% in 2016. In terms of student lives, this means that 90 students were absent for more than 25 days.

According to the teaching staff, the principal is "loosening up," and he is trying to engage the students in learning more. Based on all seven teacher interviews, Lassiter was out of control when he arrived and he was very strict because of the discipline issues that had to be confronted. One teacher who used to close and lock her door to teach without interruption said that the principal had changed the teaching environment first. The teachers felt isolated before, and now they are unified. The consistency between the administration and the teachers is better at the school and the teachers' relationships with students are better also. The principal has also empowered the teachers with decision-making opportunities.

During his 6-year tenure at Lassiter, the principal and his teacher-leaders have introduced after-school programming, junior varsity sports, and extra-curricular clubs to encourage the students at school. Leadership has carefully chosen to ensure that all activities have opportunities for athletics, social time, and academics. The cheerleaders have pep rallies for both academic and athletic competitions.

This year, the staff is making a concerted effort to engage the students in these activities. While there are many enrichment activities, there are very few students who participate. The participation numbers are listed in parentheses, showing that with a student population of 900, these participation rates are low. There were two six-week cooking classes facilitated by the 4-H (12 students in each session) and a Safe Sitter training also facilitated by 4-H (14). The Chess Club for beginners and master players (8) is a recent addition to extra-curricular activities to encourage healthy competition. The Explorers Club facilitated by Learning for Life which delves into career interests (17) and Karate taught by Corbin's Karate (16) are offered by local providers, but located on the school campus. The Student Nutrition Advisory Council (10) gives

students the opportunity to participate in leadership of the school. The No Girl Lost, a program to guide female students towards smart decision-making and life choices (17) is a support group which meets after school.

The changing demographics of the school boundary has created a large population of Hispanic students, at 18%. The school started an Adelante after-school program to support students who were struggling with homework, or work in school. This program has expanded several times through the past two years, even after the busing program was cut because of lack of funding. The program as it exists now includes not only academic support for students, but resources for parents. This year, they held a banquet to celebrate student success as well as the students' cultural heritage.

While Lassiter has utilized many of the programs that have been adopted by the district, the limited number of personnel in leadership positions has impacted their ability to operationalize the programs productively. Lassiter's staff understands the efforts with restorative justice circles, and the M&M and WIN programs, but the leadership lacks the capacity to use the programs in the way they are intended.

Lassiter's leadership has the academic instructional leadership knowledge that would be a great complement to the sense of belonging and culture of care that is being developed in the priority middle schools. In turn, Lassiter could benefit by learning how to utilize the existing systems to develop a better culture of care at the school.

KNIGHT: BEHAVIORAL MODEL

The leadership change at Knight Middle is the most recent in our comparative schools. In April of 2014, the newly hired principal began listening sessions with students and faculty. She met with groups of students from each grade level and asked what they liked about their school and what they would change about their school. Overwhelmingly, the students said that they were not respected by the teachers. Students did not like that they had to stand in line to change classes and that they could not speak in the hallways. Students also reported that they felt the teachers were unhappy, did not like their jobs, and did not like them.

When speaking with teachers, the principal found that a majority of them wanted to transfer to another school or leave the profession altogether. According to a counselor who is still at Knight, the principal asked in a faculty meeting, "Who would send your child or grandchild to Knight?" and no one raised a hand. In the summer of 2014, the new principal had to fill 20 teaching positions. Only 47% of the staff chose to stay. She hired 12 teachers who had just graduated from college and were recently certified; 1 person with an emergency certification; 2 teachers from a nearby Catholic school; 2 teachers from out of state; 1 teacher from another district, and 2 teachers whom JCPS had hired and were overstaff positions.

Because of the inexperience of the teaching staff, teacher support has been a main concern for the leadership team at Knight. The support for teachers was delivered for both developing socio-emotional ties with students and striving for academic press. In the words of the principal, "If you don't feed the teachers, they will eat the children." Also, according to leadership, it was easier to create a culture of care with a predominantly inexperienced teaching staff because they needed help with classroom management, and were cognizant of the need. Since Knight was introducing a positive behavioral plan, the teachers were ready to be trained and felt like they were an integral part of the change. The behavior system was explicitly taught and reinforced by leadership. At this middle school, our research team did not hear any teachers

raise their voices at children for any reason.

An example of the protocol for interacting with students was given by the counselor. If a student was roaming the hallways after the bell has rung, a teacher's reaction might be, "What are you doing out in this hallway again? Where are you supposed to be!?!" The coached expectation for teacher language at Knight in this situation is, "What can I help you with? How can I support you?" Our team saw this method in action.

The leadership team has focused on creating a sense of belonging and caring support for both teachers and students. When interviewing leadership team members, their descriptions of

personalized learning revolved around both groups. It was not just an outreach for the students. Both the teachers and students feel a sense of responsibility and empowerment in their interactions throughout the school day.

Unlike the other schools, Knight allows students to change classes independently at the bell. Teachers were vigilant in duty posts. Each teacher had assigned spaces to watch. The doors to the bathrooms were unlocked by the bathroom monitoring teacher, and she was posted outside of the door. Each grade level used a different set of steps to go upstairs, which was monitored by a teacher of that grade. Students using the wrong stairwell were redirected in friendly tones. When the second bell rang, the teachers checked the restrooms, locked them, and joined their students in the classrooms.

The students were obviously enjoying the social time between classes. They were speaking

"They want to be here – even when they are mad – even when they don't want to work – they know that they are safe and that we love them."

to each other and laughing as they moved toward their classrooms. An important aspect of this freedom, is the responsibility placed on the students for good behavior. The teachers reported that classroom transitions have gotten better each year as the students who were there before the new principal move to high school. Each year, the incoming class adapts to the norms that are established by the culture of the school. Our team happened to visit after the 8th grade class had lost the privilege to change classes unaccompanied by a teacher. For two weeks, the 8th graders had to stand in line silently while the 6th and 7th grade were able to talk and move at their own pace between classes.

The association of privileges and responsibility, as well as respect, both for themselves and others, created a very dynamic learning environment. Students overwhelmingly (74%) felt that they "belong" at Knight in the 2016 climate survey. This is an anomaly among schools in the district that are not magnet or special program schools. Knight's student body is made up of 84% of students who reside within the school boundary and have no choice in where they attend. Along with the programs in school, Knight leadership staff also makes a concerted effort with outreach. Each summer before the new students enter the 6th grade, a team of teachers and administrators visits their home to welcome them to Knight. They take schedules, a few office supplies, and the student handbook for the family. Teachers we interviewed expressed that this activity was one of the most clarifying experiences that they have.

Seeing where their students live helps them remember to treat their students with respect. When speaking with the counselor and other support staff about the positive behavioral intervention plan, including care circles (or restorative justice circles), many reiterated that Knight is a safe place for their students. The outside of school factors for their students weighs heavily upon them. As one teacher said, "They want to be here – even when they are mad – even when they don't want to work – they know that they are safe and that we love them."

All three of the studied schools are making strides toward creating a safe and caring culture for students and engaging students in worthwhile academic endeavors. While interviewing and discussing issues of attendance, sense of belonging, and personalized learning at the schools, the research team was often asked about programs at the other schools. Although these leaders are all competitive by nature, the inquiries seemed more of a search for best practices. All three of these teams would benefit from a collaborative leadership professional learning community.

The chart below documents some of the data available in the JCPS data books regarding the change in student perception of sense of belonging at the schools. On the left columns of the chart, the research team has exhibited student response data from the year prior to the cultural changes set in motion by the new leadership teams. The columns on the right display the numbers and percentage of students responding to the statements from the same climate survey taken in 2016. The two priority schools, Western and Knight, show a markedly positive change in sense of belonging and engagement in school; whereas, Lassiter shows a slightly negative change.

%	Agree	Dis	%	2008 Western Middle School 2016	%	Agree	Dis	%
59%	162	113	41%	N = 275 think school is fun and challenging. N = 499	70%	347	152	30%
60%	164	110	40%	65% I enjoy going to school. 96%	60%	299	187	37%
45%	124	145	53%	I would rather go to this school than any other school.	68%	338	133	27%
66% 181	181	83	30%	I feel that I belong in my school.	84%	417	74	15%
	Α	D		2010 Lassiter Middle School 2016		Α	D	
57%	409	305	43%	N = 714 I think school is fun and challenging. N = 860	54%	467	393	46%
52%	371	342	48%	90% I enjoy going to school. 99.9%	44%	381	471	55%
51%	365	345	48%	I would rather go to this school than any other school.		387	437	51%
74%	529	184	26%	I feel that I belong in my school.	67%	580	256	30%
	Α	D		2013 Knight Middle School 2016	2.0	Α	D	
51%	213	207	49%	N = 420 I think school is fun and challenging. N = 374	71%	264	108	29%
48%	200	220	52%	94% I enjoy going to school. 97%	58%	217	155	41%
45%	191	229	55%	I would rather go to this school than any other school.		198	137	37%
68%	284	123	29%	I feel that I belong in my school.		276	88	24%

After examining behavioral and teacher interview data, the research team concludes that this student response may be a reaction to leadership policies aimed at creating a norm of safety at the school.

up to 100% due to survey fatigue and/or rounding.

PERSONALIZED LEARNING

Finding 1. Students are participating in personalized learning strategies through many different platforms. While there are efforts to personalize learning at all schools in a clear and consistent manner, school leadership and teachers have differing ideas about the meaning of personalized learning. A high degree of uncertainty exists among staff regarding the definition of personalized learning and associated classroom and school application, leading to a pattern of uneven implementation.

Personalized learning is an education reform effort that is difficult to define. What is evident in our studied schools is that personalized learning is not explicitly defined at the district level in JCPS. Although we were unable to find a consistent definition across the three schools that the research team visited, there were common themes that emerged across the three schools. Perhaps more importantly, each school seemed to embody the concept in its own way which proved both powerful and meaningful for the students they served.

Using the relevant literature, the research team sought an operational definition of personalized learning. Next Generation Learning Challenges, an educational company promoting the use of technology to dramatically improve college readiness, defines personalized learning as "an education model where students are truly at the center and learning is tailored to individual students' strengths, needs, and personal interests. Learning opportunities take into account existing knowledge, skills, and abilities, set high expectations, and push students in supportive ways to reach their personal goals" (nextgenerationlearning.org).

Enyedy (2014) distinguishes personalized instruction as focusing on "adapting the content and logistics of instruction—i.e., the pace, order, location, and lesson material—for individual student needs, such as delivering new content based on a student's score on a quiz from a previous lesson," which focuses on teacher student relationships, rather than digital programs (p. 3).

The research team discovered important work in the area of personalized learning from a consortium of educational experts from October 2014, including the Bill and Melinda Gates Foundation which compiled a four-part "working definition" of the attributes of personalized learning (Appendix E). The four attributes for a foundation of personalized learning are (1) competency-based progression; (2) flexible learning environments; (3) personalized learning paths; and (4) learner profiles. They also identified critical questions for K-12 officials to consider in implementing personalized learning.

Competency-based progression of students is defined as not only monitoring student growth through formative and summative assessments, but also as ensuring that students can pursue new learning opportunities as soon as they have mastered content. There is a focus on attaining course credit based on student mastery of skills. Flexible learning environments in schools are developed by ensuring that staffing decisions, space utilization, and time allocation respond to student academic needs, instead of efficiency models. The flexible learning environment also is concerned with grouping of students and the connections with adults in the building. In other words, how might the school facilitate the personal connections among students, and between students and adults?

The inter-related attributes, personalized learning paths and learner profiles, illuminate the goals of true personalized learning in schools. Educators must have clear, high expectations for all students, but students should be able to customize their learning paths based on individual

preferences, skill level, and goals. The learner profile aspect adds the motivational factors of the student, encouraging educators to facilitate student ownership and responsibility. Goal-setting activities with students are an important part of this process. The difficulty of establishing individual paths and student ownership while keeping clear, high expectations for all students is not to be understated. This is the difficulty of personalized learning for teachers and instructional leaders.

Personalized learning seeks to accelerate student learning by tailoring the instructional environment—what, when, how, and where students learn —to address the individual needs, skills, and interests of each student. Students can take ownership of their own learning, while also developing deep, personal connections with each other, their teachers, and other adults. The research team examined the nature and quality of personalized learning against this framework at each of the studied schools.

WESTERN: FINDING WHAT WORKS FOR EACH STUDENT

Student ownership, knowing a student's strengths and weaknesses, and allowing students to advance at their own unique readiness levels are some of the foundational elements to the personalized learning systems at Western Middle School. Teachers used learner profiles and developed flexible learning environments to create varied learning experiences for each student.

At Western Middle School, a 6-year veteran teacher highlighted instructional methodologies as an example of personalized learning stating, "We do everything off of learning target sheets. I use a learning target sheet to personalize learning for kids who didn't get it. The target sheet allows kids to

"Personalized learning is finding where a student's strengths lie and their weakness are, and how they can demonstrate mastery in a particular subject."

track their performance. I can use the target sheet to really support those students that didn't get it. If the students didn't get it, the target sheet allows me and students to help support them getting where they need to be." This teacher's response indicates she operationalized personalized learning through a classroom system focused on developing student ownership. Students were given ongoing assessments, where each student advanced to new material based on their readiness. The teacher provided a great deal of information and feedback to students, which allowed them to see their academic progress at any given moment.

Another teacher at Western stated: "I think it's about finding what works for them... In math this year I've used Algebra tiles for the first time, which really connected with students. It's about finding what works for each student, because they are going to learn differently. It's interesting, because some can't work well with manipulatives, as that hinders some student's application learning... For some it's exactly what they need, and for others it is not."

This teacher continually reiterated that personalized learning was about finding what works for each student. Her response highlighted how she created a varied learning experience

for students by using flexible learning tools based on each student's unique learning profile that was built on a student's own strengths and weaknesses. This flexibility empowered students and allowed them to take ownership of their learning process.

A school support staff member when asked the same question about personalized learning and tangible demonstrations of its use at Western stated the following, "Personalized learning is finding where a student's strengths lie and their weakness are, and how they can demonstrate mastery in a particular subject. Here because we are a visual arts school, we've encouraged our teachers to move away from paper and pencil assessment mastery all the time. . . Teachers have to know how students learn, in order to differentiate instruction and fill in the gaps for any concepts that they didn't get in a particular unit."

Again, this staff member brought to life how teachers were creating a personalized learning path for students based on their unique strengths and weaknesses. Learner profiles were used to develop personalized learning plans where students could advance individually based on their readiness. Flexible-learning environments allowed students a varied learning experience where they not only had ownership of their learning, but they found content that was driven by their motivations.

At all three schools, the research team examined many of the components of the classroom layout that could support the personalization of learning in that environment. Some of those key components included: access to technology, adequate resources, instructional methods, and student performance options.

The students at Western had exposure to high levels of technology, which included desktop computers in some classrooms. IPADS were used for projects in the science classroom. Each room had plenty of books, resources (markers and utensils), and posters that were content specific, which further enhanced the learning environment. In many of the classrooms there were also personalized reading books that the students clearly enjoyed (as they were observed eagerly reading in a number of rooms) and had been chosen with them in mind.

The teachers used a variety of pedagogical teaching techniques which included: lecturing, working with individual students, answering student questions, having students work in groups, having students write notes/and develop diagrams and drawings, and asking students to recite in whole groups. Students were also able to work in a number of different ways, including silent reading, playing an instrument in the hallway with a personal coach, answering teacher questions, asking the teacher questions, drawing, solving problems independently, and collaborating with other pupils.

One of the most impressive school-wide tools used for personalized learning at Western is the use of time during school. The intricate scheduling developed by the leadership team creates an environment ripe with opportunity to differentiate student learning. A student's arts major, as well as academic interventions and enrichment activities are scheduled at alternating periods during the day with alternating amounts of time devoted to each. While observing academic content classrooms, the research team observed small groups of students participating in online interventions with a facilitator. Students at Western are visibly excited to be present and engaged in learning at school.

KNIGHT: WINNING MEANS TAKING OWNERSHIP

Knight creates personalized learning path developed around students' strengths and needs. Knight provides a platform for student ownership of their learning, built on their own

motivations and individual goal setting. Competency-based progression and flexible learning environments also contribute to the success of personalized learning at Knight.

This overarching perspective was observed when a veteran member of the Knight Middle School administrative said, "I don't think we use the word personalized but we use individualized learning. We do that in our interventions. We look at the data from MAP, previous KPrep scores, current grades from class, and we get input from teachers to decide what intervention or enrichments the kids may benefit from. With the enrichments they have, that is our WIN class, where the students have some say so in that. The student interest is a big part in that. The WIN class is usually 6 weeks, and will be redone based on the data."

The rotating, flexible scheduling of What I Need (WIN) classes allows instructional leaders to place students in interventions when needed or allows students to choose enrichment activities, if they do not need interventions. Because they change on a 6-week timeframe, students enjoy many opportunities for both intervention and enrichment. The leaders ensure that all children can choose at least one enrichment activity during a semester.

A school support personnel member stated, "If students are struggling they get into a CLOSE WIN class, especially when they are struggling with their behavior. There are WIN classes for tardies; there are WIN classes across the board. Once they go to that WIN class and fix the issue, then they get to go to the WIN class of their choice."

These responses highlight a system in which teachers use ongoing assessments to develop a personalized learning plan and path for each student. This competency based progression model provides students with feedback allowing them to take ownership of their learning process. Teachers and students are keenly aware of the student's strengths and weaknesses. Flexible learning environments and flexible grouping provide students with varied learning experiences. A student's ability to choose his or her own WIN class provides the ownership and motivation necessary to be successful.

A content teacher from the 6th grade stated, "I see personalized learning as getting to know each student's strengths and weaknesses, and understanding what they need [sic]." This teacher utilizes a program where students use their agenda books as a tracker system for completed work. For students who are behind in completed assignments, the teacher ensures they receive extra time and instruction they need.

Interestingly at Knight, the interviews and observations confirmed that the personalization strategies revolve around behavioral and cultural themes as much as academics. A new PE teacher stated, "to me personalized learning would be meeting the needs of each individual student. An example here is if I have a student with an IEP, or if I have a kid that doesn't like PE, I have 3 activities students can choose from." His lesson plans include a variety of activities for students to choose according to their personalized learning pathways.

A math teacher who had only been at the school a few years, stated, "Personalized learning is individualized, setting up the learning for them. No one learns the same; it takes everything into account (home not just academics) . . . At Knight, we do a great job of talking to our students about not just the *how* but probably more importantly the *why*. We give them 6 or 7 different ways that they can do a project, and truly try to learn as much about each student as possible." This teacher personalizes learner paths and plans for her students based on student strengths and weaknesses. Students advance to new material as they prove competent. She provides varied learning experiences where additional time is a key lever in personalizing the learning experience for her scholars.

Students work in various modes in the classrooms at Knight. In some classrooms, the

research team found students working in pairs at tables and students going to the board solving problems, and in other classrooms they were working independently. According to the behavioral interventionist, personalized learning is also important in building teacher capacity. She and other instructional staff consider the needs of teachers when planning coaching or modeling sessions and when developing professional development. This extension of the personalized learning platform to include teacher growth is unique at Knight and will lead to better student outcomes.

LASSITER: BEGINNING PERSONALIZATION STRATEGIES

The four components of personalized learning – competency-based progression, flexible learning environments, personalized learning paths, and learner profiles – are not as evident at Lassiter as at the priority middle schools.

Lassiter utilizes tiered academic intervention plans for students who need intervention for specific skills, and the leadership team has extended the tiered system to create individualized discipline plans for students with behavioral issues. However, there was a distinct difference in staffing at this school. While Western and Knight provide interventionists, both academic and behavioral, and robust leadership teams, Lassiter has classroom teachers without the supporting personnel. The teachers meet with students form small group and personal interventions on a rotating basis.

Since Lassiter is not a priority school, its funding has trended approximately \$2,000 less per pupil for the past five years. With a student body of 900 pupils, that is \$1.8 million less this year than would have been allotted if it were a priority school. The funding at Lassiter does not provide for as many opportunities to have flexible learning environments or as many choices for personalized learning paths.

Much of the personalization, in fact, centers around strategies to create a sense of belonging for the students. There has been a recent push to increase options for student participation in both academic enrichment and sports-related activities, at Lassiter. According to the principal, Lassiter added a football team, girls' volleyball and softball teams, and chess teams for both sexes. "Athletics are not only a leverage for academics, athletics also create school spirit and a sense of belonging for students and parents and the community as a whole--a Football Friday Night Lights for the Fairdale community," wrote the principal in an email.

A National Honors Society, Jr. Beta Club, and an Academic Team, including a Quick Recall Team, were established to provide a pathway for academically-minded students to experience competition and success. After years of support and encouragement, the school recently won the Governor's Cup District Championship for the first time in Lassiter's history. Academically, Lassiter also offers upper-level Cambridge International Exams curriculum for students. This program is a competency-based curriculum which attracts academically-driven students and develops student responsibility and initiative.

An important personalization strategy is the after-school Adelante Hispanic Youth Achievers which focuses on helping young Latinos become college and career ready. Lassiter began with one after-school session which was expanded into two after-school sessions because of the number of students participating, even with budget cuts causing the school to cancel bus transportation. Since Lassiter is 18% Latino, this program is important in personalizing learning for these at-risk students. Parents support this program and the school as they provide their own transportation to ensure their children are able to participate in this program.

While many of these additional activities can be utilized to build a sense of belonging, they are specifically utilized at Lassiter to engage students in academics. Since the school is populated with students who are assigned to the school and who are from a high poverty area, student engagement in academics is an issue. In this way, those activities can be seen in the framework of personalization. These are options for students in their personalized learning paths.

Finding 2. District leaders and school administrators conduct reviews and analyses of JCPS Data Books and other live data in a consistent and timely manner. Teachers are unable to translate the data presented to them into teaching strategies. The anxiety caused by the data overshadows teaching and learning in the classroom.

The discussions of data at the school level is concerned with decreasing the number of novice students, decreasing the academic achievement gap, and moving students toward proficiency. There is a disconnect at the classroom level. The discussion of data in the broad sense does not give teachers a sense of efficacy. The research team found a general anxiety about data to the detriment of content in the classrooms. There was an emphasis of moving children from one data point to the next without the corresponding knowledge of how to instruct the student in the skill needed in the content strand.

In the New Strategic Plan And Priority Schools released by JCPS in April 2016, district leadership described the development plan around teacher efficacy. The plan included: "focused support on the proficiency of priority school teachers on important strategies such as (1) Professional Learning Communities (PLCs); (2) Differentiated Instruction; and, (3) Assessment Literacy... PLCs organized by content grade, or across grades are analyzing student data/work (assessment literacy) to identify individual learning needs, teachers to adjust their instructional strategies, and to implement before, during, and after school enrichment, remediation, and interventions" (Appendix D).

The research team found that this plan was actively present in the schools. In the PLCs we visited, the teachers were focused on assessment literacy. During our visit, we observed both math and English PLCs in which the discussions centered around how to design formative assessments to ensure that teachers could test certain skills. During the PLCs, we did not hear any instructional strategies or discussion concerning the academic content of the class. The discussion centered around assessing and moving students to computerized interventions. There were no strategies for instruction, only discussions of which intervention method to schedule for the students.

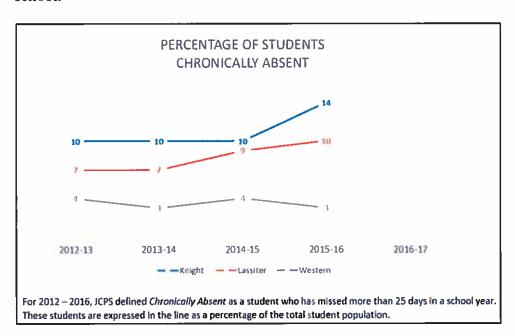
While this is a strategic way to place students, we found that teachers may not feel connected to or responsible for student academic achievement. The teachers were not engaged in individual students' learning from them; they were engaged in more administrative matters concerning the sorting of students. The personal teacher responsibility for student achievement seemed removed from the process. Instead of the English teacher strategizing how to teach a student to read, he was focused on whether the assignment he designed was adequate to assess whether the student could read, and if so, what computer program the student might need to get extra reading opportunities.

While this may not seem an important distinction, the important connection between teacher efficacy and teacher responsibility for student learning was missing. Since research tells us that teacher expectation is powerful for student success (Murphy 2009), particularly for success of students from low-income households, this focus on formative assessment and student

placement, to the exclusion of teacher content knowledge and student expectation/teacher responsibility diminishes the effectiveness of the teacher. This strategy may be important at certain times; however, building the teacher capacity and responsibility for educating each student in his/her room will lead to better student academic outcomes.

ABSENTEEISM

Finding 1. Each of the three schools has all made progress in implementing the new district policy regarding chronic absenteeism. Each has adopted procedures to implement the policy that is fitting to the particular culture and norm of the school.



JCPS has changed the definition of chronic absenteeism from 25 days per academic year, to 17.5 days per year. This is based on 10% of the number of calendar days and the student absenteeism is calculated at 10% of days that school is in session throughout the year, not at the end. For this reason, students can be identified earlier in the year and interventions can be made accordingly.

JCPS's change in definition of "chronically absent students" skews the data for 2016-2017 because the number of days a student is absent prior to being identified as chronically absent has changed from 25 days to 17.5 days this year. Although we do not have the final numbers for the year, all schools already show an increase in chronically absent students. This is not because of a change in culture at the school level, but because of the definition change. JCPS is in the process of aligning the data for the past 5 years to reflect the change in definition. Until then, we are not including the 2016-2017 data in this graph.

As noted in the chart above, Knight and Lassiter middle schools have similar trajectories in the percentage of chronically absent students. Their trends have hovered around the 10% mark historically. Both schools have student populations that are majority from the school cluster, known as "resides." Knight's student body is composed of 86% reside students and Lassiter's student body is made up of 72% resides. Western, the magnet school, has a much lower

percentage of chronically absent students because students have chosen to attend. The Western leadership team also indicated that students who were trending toward becoming chronically absent could be sent back to their home districts.

When we began our research last summer, the JCPS district administration was hopeful that Knight Middle School would meet its AMO targets for the year, which would allow them to move out of priority school status. However, Knight experienced an unexpected uptick in chronically absent students, which may have affected academic performance.

Knight Middle had not been in the bottom 5% in performance for the State for the past five years, and the school had met its AMO goals for two consecutive years, anticipating rotating off the priority list after the October 2016 assessment announcements. Unfortunately, Knight did not meet AMO for 2016. Looking to the work of Balfanz and Byrnes, our team reflected the significant uptick in the chronic absentee percentage for Knight, 14% in 2016, could be an issue with academic achievement. Accordingly, Western Middle, with chronic absentee percentages hovering at 3-4%, would stand to have much better academic outcomes for students, based only on attendance research. The research indicates that keeping students in class, particularly economically disadvantaged students, is an important factor in their academic success.

DISCUSSION

SENSE OF BELONGING OF STUDENTS & STAFF

Sense of belonging of all students and staff evolved from our review of pertinent literature, including the notable work of, and our discussions with, Vanderbilt University scholar Joseph Murphy. Sense of belonging can be defined as an environment where students and teachers are actively engaged in the teaching and learning process and student achievement is improving. Because schools are organized with efficiency in mind and concerned with the broad scale of reach, in most educational institutions, "relationships are not only unimportant and irrelevant, but [they are] an obstacle to efficient operation," (Murphy & Torres, 2014). Therefore, purposely creating a sense of belonging is of utmost importance when working with students in priority schools. Additionally, sense of belonging (or an ethic of care), was consistently found in the research associated with personalized learning and increasing student academic achievement.

In studies concerning educational attainment of minority students, these students "seem to be more sensitive to the teacher's perceptions than their white classmates are" (Uhlenberg & Brown, 2002). And "the value that black students place on their teacher's approval makes them more vulnerable to the way teachers view them" (Thompson & O'Quinn, 2001). While not causing the achievement gap, low teacher expectations are felt most by the students who need support from teachers and a sense of belonging in a caring learning environment. Additionally, teachers who care about their students personally and express those concerns both in actions and attitudes of caring create an engaged learner who can achieve more.

According to O'Malley & Amarillas (2011), "high expectations and caring teacher-student relationships are critical factors for student success." In their study, California high schools that exhibited strong teacher support had more students who received higher grades and felt strongly associated with their schools. The schools with this ethic of care had fewer students who reported skipping school and feeling unsafe at school. Wentzle's 1997 study also showed that students who perceived caring from their teachers were motivated for positive social and academic outcomes.

For the ethic of care in a classroom to move beyond isolated pockets, districts must identify and develop the capacity of instructional leaders and teachers the four norms associated with it: the norm of care, the norm of support, the norm of safety, and the norm of membership (Murphy & Torres, 2014). These four norms—care, support, safety and membership—reflected by students' efficacy and sense of belonging—directly correlate to their academic and social learning. The research team found that two of the three middle schools studied had created a strong sense of belonging for their students, based on the four norms explained by Murphy, et al.

For teachers, Murphy (2009) promotes *Communities of Professionalism*. Murphy defines the six elements of professionalism necessary for staff engagement, as shared vision, collaboration, ownership, shared leadership, shared accountability, and trust. These six elements encourage increased professional and cultural capital and teacher practice; they also directly relate to increased student academic and social learning. Only one of the schools had created a community of professionalism among its staff. Its shared leadership approach gave teachers a strong sense of efficacy and personal responsibility.

PERSONALIZED LEARNING

In the original request for assistance, Jefferson County Public Schools district administrators asked for the study of the use of personalization of learning in "priority schools" within their system and make recommendations concerning the use of personalized learning as a means to improve student outcomes in priority schools. They believed that personalized learning was at the heart of the improvement in Knight Middle School. The Kentucky Department of Education also highlighted "personalized learning" in its assessment of the JCPS District. They recommended that JCPS implement and monitor an "instructional process" ensuring a rigorous curriculum and student engagement in the learning process; improve student engagement by moving away from teacher-centered whole-group instruction; develop, implement, and monitor a process for collecting, analyzing, and using student assessment data to monitor and adjust curriculum at the school level. KDE's recommendations, while not explicitly mentioning personalized learning, do embody the spirit and implementation of a personalized learning program.

JCPS district staff alluded to school-level work with personalized learning in his comment that "Knight Middle School has made important changes in *student engagement and ownership*, through including individualized goal-setting activities with each student."

The use of personalized learning as a strategic school or district-wide improvement initiative is grounded in current research. A study by the RAND Corporation (2015), which examined the impact of the use of personalized learning at multiple urban schools across the country made the following findings:

- A majority of schools had positive effects on student mathematics and reading performance over two years.
- Growth continued to accumulate in a third year in schools that started implementing personalized learning by 2012.
- Scores grew substantially relative to national averages.
- A large proportion of students with lower starting achievement levels experienced greater growth rates than peers, particularly in mathematics.
- Results were widespread, with a majority of schools having statistically positive results.
- District schools in the aggregate did not show significant positive effects

These findings support much of the research on the use of personalized learning in urban school settings. While some of the findings are certainly promising, the fact that district schools in the aggregate did not show significant positive effects also supports research that indicates that quality and efficacy of implementation (particularly with the use of technology as a personalized learning strategy) is a factor that cannot be overlooked. Heinrich and Good (2016) state that research shows that "there is enormous variability in how digital tools are rolled out, accessed, used, and supported in schools, and that issues of capacity—among schools, teachers, parents and students—likely play a significant role in determining whether or not students gain from the implementation and use of digital educational tools."

The personalized learning research highlighted key factors that were used to drive and inform the direction of our research. The first factor was that there appears to be no one definition of personalized learning, in the research. There were certainly common characteristics that seemed to be embodied in the various definitions. What was important, however, was that a consistent definition was being used across each organization, whether that be a school or entire district. The next factor revealed through our study was that the implementation of a successful and effective personalized learning program was a direct result of consistent and effective implementation at the school level.

ATTENDANCE

Attendance quickly arose as an increasing concern in our preliminary data review. While educators have expressed the need for regular attendance, the significant link between chronic absenteeism and grades had not been studied comprehensively until recently. However, a 2013 mixed method study in New York Public Schools, presented a significant link between improved academic attainment and graduation rates among students who exited chronic absenteeism. While the opposite has been observed, that chronically absent students are more likely to drop out of school and have low performing academic attributes, the link between increasing student GPA with better student attendance had been mostly speculative.

Additionally, researchers noted that clear, simple data concerning chronic absenteeism was often difficult to find, and in fact, was often masked by average daily attendance data. Identifying chronically absent students became a focus of researchers and data collectors.

The link between poverty, student mobility, and absenteeism is significant. Studying these interlinked factors has been a ten-year focus of the Johns Hopkins: Everyone Graduates Center. According to Balfanz and Byrnes (2012), "Because students reared in poverty benefit the most from being in school, one of the most effective strategies for providing pathways out of poverty is to do what it takes to get these students in school every day. This alone, even without improvements in the American education system, will drive up achievement, high school graduation, and college attainment rates." Their focus on urban middle schools for attendance intervention began as early as 2007.

The Center's recent study, Meeting the Challenge of Combating Chronic Absenteeism: Impact of the NYC Mayor's Interagency Task Force on Chronic Absenteeism and School Attendance and Its Implications for Other Cities (2013), consisted of analyzing historical quantitative data used to identify chronically absent students, choosing comparable schools for intervention and non-intervention, collecting data concerning interventions, and collecting qualitative data from students, teachers, and administrators. Along with this, the study evaluated strategies used to improve student attendance among the task force schools from 2009 – 2013.

The components of their attendance intervention included: city-wide interagency partners; data to measure, monitor and act; success mentors, which include school mentors from staff and students and agency mentors; weekly principal leadership meetings; connections to local community resources for families; a public relations campaign to raise the awareness of problems associated with chronic absenteeism; incentives to increase attendance; and a plan for sustainability of the programs.

Among the significant findings in the three-year study:

- Task force schools significantly and consistently outperformed comparison schools in reducing chronic absenteeism.
- Students in poverty in task force schools were 15% less likely to be chronically absent than similar students at comparison schools.
- Students who stop being chronically absent see academic improvements.
- Students who exit chronic absenteeism see improvement (from 72% to 73%), a statistically significant difference given that those were cumulative GPAs which are harder to impact.

A review of the literature as well as our review of JCPS data, prioritized the importance of including chronic absenteeism in our research study. Since at least the 1992-93 school year, JCPS reported students who missed 25 days or more as a way of tracking students with severe attendance issues. A recent change in the definition of "Chronic Absenteeism" at the district level was based upon the Balfanz and Byrnes study from July 2016, For All Kids, How Kentucky is Closing the High School Graduation Gap for Low-Income Students.

According to the JCPS district office staff, the definition for a student who is considered a chronic absentee was updated for the 2016-2017 academic year. JCPS followed the recommendations of Balfanz and Byrnes by identifying a chronically absent student as one who has missed 10% of the total days of school. This has created a better system for the early identification of chronically absent students and consequently, earlier deployment of intervention strategies to combat the issue.

This change in definition of chronic absenteeism affects our assessment of the data, in that the trends do not hold true for the present year of our research.

CONCLUSION

Our capstone project began with a request for assistance in describing the strategies used for personalization of learning in JCPS priority schools with attention to aspects that might improve student engagement and academic attainment. After a review of literature and consultation with experts, the research team expanded the scope of questions to include an important overlapping theme, student and faculty sense of belonging, as well as an important factor for academic achievement in priority schools – student attendance. We found that personalization strategies were used successfully to increase student sense of belonging and to encourage attendance at priority schools.

While expanding the boundary of the JCPS request concerning personalized learning, the team limited the physical scope of study to three middle schools in the Jefferson County Public School District. In our preliminary examination of the trend data (Appendix G), we found an interesting convergence of events at priority and non-priority middle schools. First, the change in attendance patterns between priority and non-priority schools in JCPS begins in middle schools. There is no significant difference in attendance rates at the elementary level between priority and

non-priority, but at the middle school level, a gap in attendance begins to emerge.

Second, the teachers with the lowest average number of years of service are teaching at JCPS's priority middle schools. Those two factors alone portray a vulnerability for students in the priority middle schools.

Other data show that gaps in student academic achievement, student free and reduced lunch percentages, and student mobility rate are the lowest between priority and non-priority middle schools which led the research team to focus on this educational level for maximum effect. After comparing data in middle schools, the research team chose three schools for study, two priority middle schools and one focus middle school with similar student demographics.

We found a robust use of personalization strategies in each of the schools. Most of the personalization, however, is utilized in the service of building a strong sense of belonging and of increasing attendance. These include mentoring programs and student input in school behavioral expectations. The use of personalized learning for academic acceleration is limited by several factors: limited teacher capacity, lack of flexibility, and lack of clear definition of personalized learning for academic achievement.

The three capstone study questions were: 1. What is the nature of and important characteristics implicit in systems and structures that ensure a sense of belonging by all students and staff? 2. What is the design of the systems and structures implemented to deliver personalized learning for students? 3. What is the design of systems and support structures that ensure high attendance rates?

Our study revealed structures, systems, and strategies to describe in our findings in all areas. Each of the capstone questions contained a subset of questions which included, "What academic effects do these systems and structures produce?" This question is the most difficult to answer definitively in its relationship to personalized learning.

Jefferson County Public School District is committed to developing personalized learning as a strategy for academic acceleration, according to the district's *Vision 2020* plan. JCPS district leadership can begin this process by building upon strategies used for developing sense of belonging in these schools. Supporting school leadership as they expand promising personalized learning strategies already present in behavioral programs into academics is a key to transforming student performance, and by extension, priority school performance.

Conclusion

Supporting school leadership as they expand promising personalized learning strategies already present in behavioral programs into academics is a key to transforming student performance, and by extension, priority school performance.

RECOMMENDATIONS

PERSONALIZED LEARNING

1. DEVELOPING A DISTRICT-WIDE PERSONALIZED LEARNING PLATFORM

A more specific and uniform definition of personalized learning is needed from the district level which should include specific strategies to be utilized on all campuses in a consistent manner.

We recommend that the JCPS district adopt and communicate an intentional framework for personalized learning that each school can adapt for their students and teachers. The research team recommends the four-part working definition of personalized learning (Gates Foundation, et al) developed in 2014. It is the most robust and complete operational definition of personalized learning currently available. The four attributes are: competency-based progression, flexible learning environments, personalized learning paths, and learner profiles.

Examining all three schools in relation to this personalized learning framework exposes a large variance in implementation of elements identified in the interview and observational data. There were consistent deficits across all three schools, particularly in flexible learning environments and the implementation of competency-based progression. Delving into the definition using the flexible learning environments attribute as an exemplar for discussion, the district leadership can facilitate adoption of the framework using the provided reflection questions.

Once the district adopts a personalized learning platform, school leadership teams can reflect upon their own practice to plan procedures for implementation. Important issues raised in the flexible learning environment attribute of the four-part definition include revisiting the school's operational alignment. The framework suggests asking, "How might we deliver all of the learning experiences that our students need, with the resources we have available? What flexibility is in the design to enable us to respond and adapt to changing student needs?"

School leadership should consider staffing and instructional roles for flexibility, asking, "In what ways might we structure teacher and other educator roles to support our instructional vision? What flexibility is needed to enable our staff to respond and adapt to changing student needs?" These questions are particularly important in priority schools because of the academic needs of the students as well as the availability of funds to construct the type of support staff needed to create a true personalized learning campus.

Another important factor to be considered in flexible learning environments is time allocation. The research team recommends utilizing the experts in the district for flexible scheduling at Western Middle School, and reflecting on the questions in the suggested personalized learning framework. "In what ways might we maximize the time each student spends pursuing his/her goals? How might our student and staff schedules respond and adapt to changing student needs?"

Finally, grouping and connections play an important part in flexible learning environment, and they are usually the most difficult to adapt in an educational institution, which is usually slow to change. The framework suggests reflection on, "How should we group students to enable the varied learning experiences we hope to offer and modify to their changing needs? In what ways might we facilitate personal connections among students, and between students and adults?" In middle schools particularly, this is a difficult, but necessary step to personalizing the learning experience for students.

These reflective questions are examples from only one element of the suggested personalized learning platform that we recommend. It is because of these reflective questions and robust definition that we recommend this platform. Most importantly, however, the district chosen definition should be shared clearly and leadership teams should be trained in the reflection and implementation pieces to adapt their procedures accordingly. In the absence of a well-defined personalized learning platform, both individual schools and the district as a whole have no actionable way to ensure that the personalization of learning is happening in schools. There is also no way to assess how effective it is being implemented, thus minimizing its overall impact on accelerating student achievement.

2. SUPPORTING TEACHER COLLABORATION

Creating processes and professional development programs that allow teachers to share best-practices with similarly situated schools would promote more consistent implementation across priority schools, rather than leaving teachers in isolation, and may diminish teacher burn-out.

The six elements of teacher engagement defined in Murphy's Communities of Professionalism are shared vision, collaboration, ownership, shared leadership, shared accountability, and trust. The research team recommends a focus on teacher collaboration and ownership in their content areas. We observed great teaching at some schools. These teachers should be encouraged through established district procedures to collaborate with each other and share best-practices for reaching their students, who are demographically similar. The reliance on interventionists and computer programs to personalize learning for students has led to teacher powerlessness and lack of efficacy. Strong professional development around content area instruction is needed.

3. COMMUNICATING DATA

The language surrounding the analysis and synthesis of data is confusing, inconsistent, and anxiety inducing. District and instructional leaders need a specific and efficacious way to discuss data that will lead to changes in the classroom. We recommend a more robust training of district leaders and classroom teachers in the use of data for continuous improvement.

The discontinuity between being advised to "reduce the number of novice level students" and what a teacher can do in the classroom on a daily basis creates anxiety and confusion. With the wealth of data available in the district, we recommend a more personalized model of data communication. The district should present a consistent and "teacher-friendly" plan for data.

JCPS has a robust system for collecting data. The district is also very transparent with the data, as teachers and the public can search JCPS Data Books online. However, disaggregating, interpreting, and knowing how to connect assessment results to skills, and following that, translating skills into teaching habits can be overwhelming for a classroom teacher. Although every school and the district has a system for up-to-date monitoring of student progress, the information given to teachers may not be as useable as leaders suspect.

From the district level and school level leadership, teachers are given the data about student progress in terms of mastery of a content area. The teacher may know that the student scored novice level in 8th grade math, and she may be told that she needs to move the student toward proficiency to close the gap; however, the translation of that information into daily habits to create learning opportunities for a student in her classroom is up to the teacher. She has many

students throughout the day and data that is not in a form that she can quickly use.

The depersonalization caused by looking at students as data points while teachers are told to move them on a trend line distracts from the core content itself. Instead of discussing how to teach English or reading at a teacher team meeting, much of the time is spent parsing through data to see which students are easily moveable along that line. "The growing emphasis on data, dashboards, and metrics, even as they may disaggregate information by groups, favor collective characterizations, depersonalization and objectification that can pull educators even further away from meaningful personal relationships" (Smylie, Murphy, & Louis, 2016, p. 4). Our research team would add that this focus on data pulls educators away from academic rigor in their content area because many teachers do not translate student results into actionable classroom activities.

"The growing emphasis on data,
dashboards, and metrics, even as they
may disaggregate information by
groups, favor collective
characterizations, depersonalization
and objectification that can pull
educators even further away from
meaningful personal relationships."

SENSE OF BELONGING

1. MOVING TOWARD ACADEMIC PRESS

Our findings suggest that some priority schools have developed a strong sense of belonging. We recommend that the instructional leadership take the next step to improve academic press. Now that the schools provide safe, engaging learning environments, learning can take place. Professional development in content areas, with a strong focus on intervention strategies in classrooms, is recommended.

Strong elements of sense of belonging and personalized learning were found at each of the schools the research team visited. At Western, students chose majors which allow them to focus on an interest; at Knight, students were offered a WIN class. affording them an opportunity every six weeks to take an elective course of their choice. At Lassiter, the large minority population of Hispanic students attend an after-school program for enrichment, remediation or homework help. These initiatives have created a strong foundation at each school, where students feel safe with a strong sense of ownership and belonging. Each of these schools is now in position to transition to academic press. Murphy, et al (1982) define academic press as the degree to which environmental forces press for student achievement on a school-wide basis. Murphy suggests that the core of school improvement is: School Improvement = Academic Press + Supportive Community (Culture).

Additionally, he argues that the two elements are most powerful in tandem. Those ingredients that are essential to academic press are quality instruction (which includes effective teachers and quality pedagogy), a strong curriculum that is rigorous, covers the content needed

and is made relevant to the students who are learning, and a system of monitoring and utilizing the data from student assessments with a shared accountability between leadership, teachers, and students. The cultural components that must be in place for academic press to take root include a personalized learning environment for students that is safe and orderly, where students find meaningful connections and opportunities to participate and feel valued; a professional learning environment for educators where they share leadership, giving them a sense of ownership in a collaborative work environment; and finally, the leadership must be learning-centered and focused on developing a supportive culture for teachers, students, and caregivers, expressing to those stakeholders the expectation of academic press (Murphy, 2016).

To develop this system of academic press throughout JCPS, the research team recommends bringing in national experts to support schools as they transition toward academic press. At each of the schools the research team visited, PLCs and teacher team meetings focused on assessment of skills, but pedagogical systems and structures including interventions for accelerating student achievement were not readily evident. The lack of professional development around these types of systems will limit the priority schools as well as others in JCPS from dramatically accelerating student achievement.

2. USING TIME TO ACCELERATE STUDENT ACHIEVEMENT

We recommend calendar revisions for struggling schools that lengthen the academic calendar from a 10-month to a 12-month calendar/contract, particularly for leadership teams. Our findings suggest that the 10-month calendar has a deleterious effect on the district's ability to plan projects for the upcoming academic year and professional development for staff.

Proponents of school turnaround have championed the extended school day, and school year as one of the most promising mechanisms for accelerating student achievement (Durlak & Weissberg, 2007). For those students who do not have access to academic supports and enrichment activities outside of school, time becomes an even greater asset. Extended learning takes many forms often falling into two categories:

- 1. In school Extended regular school day or school year
- 2. Out of school Before school, afterschool, or summer school programs built around hands-on, experiential learning that engages students in different ways, and involve community partners (Durlak & Weissberg, 2007).

The research team acknowledges that simply extending the school day is not enough; utilizing time more wisely is paramount. In general, research has shown a strong positive relationship between the amount of academic learning time and student achievement. This indicates that any increased time should first be directed to maximize the amount of academic learning time in the existing school day and year, with an emphasis on devoting the time to specific interventions backed by strong evidence (Silva, 2007). Western Middle School, with its intricate master schedule, is a great example of maximizing the school day to allow more opportunities for students to learn. This use of time should be scaled up to the other schools in the priority and focus school system.

Additionally, just as time is important for student growth, JCPS principals need more time for collaboration and planning. According to our records, the principals of the studied schools serve on 10 month contracts. This is particularly concerning for priority schools which have so much ground to make up. Increasing the school day and school year with strategic interventions takes increased planning and preparation which the research team suggests

warrants a 12-month contract. Experts have estimated the cost of increasing learning time by 10 percent would increase cost by 6 to 7 percent. However, utilizing these increased time allotments for only the priority schools could prove cost-effective in accelerating student achievement (Silva, 2007).

3. SHARING BEST-PRACTICES FROM LEADERS

The district has dynamic instructional leaders. The leaders should be sharing ideas with other district leaders. To scale up good practices already taking place in schools, the leadership must have time to engage in professional learning communities across the schools, and within schools.

The research team found dynamic instructional leaders at each of the site schools. These leaders had extensive understanding of the context in which their schools existed and had taken very specific actions to improve student achievement in their schools. Each school had its own unique network of administrative and support staff that included support from the district level, through assistant superintendents, priority school director, or curriculum coordinators. While this system was quite effective for delivering support to schools, there appeared to be little, if any, communication between school leadership teams. The environment was not competitive, but it was clear that each team had very little knowledge or understanding of programs that were being implemented successfully at their sister schools.

It is imperative for JCPS to create systems and structures that allow for collaboration between schools, via the exchange of ideas, collaborative planning, and even strategic leadership initiatives where leaders from different schools come together. With the priority schools facing a short window of opportunity for improvement, it is just as important for leaders to accelerate their effectiveness as it is for schools to accelerate their student achievement. Leaders learning from other leaders could prove a key lever in that process. This would be a low-cost strategy for replicating, and systematizing effective programs existing in isolation at individual schools around the district. The research team additionally recommends that the leadership collaborative is framed by careful consideration of similar school student demographics. For instance, although Lassiter is not a priority school, Lassiter's leadership team faces many of the same entrenched problems that other priority middle schools are experiencing. Their collaboration would give insight to all parties, a true sharing of ideas.

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Appendix A – JCPS DataBooks content

Demographic					
Schools by Board Member/District Map	Mobility Index Trend				
School Boundary Map	Stability Index Trend				
Attends/Resides Advance Program	Students with 25 or More Absences Trend				
Attends/Resides	Optional/Magnet Applications				
Enrollment by Race and Gender	Optional/Magnet Enrollment				
Enrollment by ZIP Code	Parent-Teacher Conference Day (Number				
Median Household Income by ZIP Code	Held) Trend				
Map	Parent Teacher Association (PTA)				
Exceptional Child Education (ECE) Data by	Membership Trend				
Resource/Self-Contained	Per Pupil Spending Trend				
ECE Data by Disability	Student Transfers				
Free/Reduced-Price Meals	Teachers With Master's Degree or Higher				
Free/Reduced-Price Meal Trend	Highly Qualified Teachers Trend				
Homeless Student Data Teachers Holding National Board					
Limited English Proficiency (LEP)	Certification Trend				
English as a Second Language (ESL)	% Teacher Attendance Trend				
Enrollment	% Teacher Retention Trend				
Market Share	Title I Schools				
Middle School Diversity Index Report					
Academic - State Accountability	System: Unbridled Learning				
Kentucky's Unbridled Learning Assessment	Achievement: Writing and Language				
and Accountability System (Explanation)	Mechanics				
Accountability Profile	Gap: Reading and Mathematics				
Achievement, Gap, Growth, College/Career	Gap: Science and Social Studies				
Readiness, Graduation Rate—Weighted	Gap: Writing and Language Mechanics				
Score Summary	Growth: Reading/Mathematics				
Achievement: Reading and Mathematics					
Achievement: Science and Social Studies					
Other Assessment					
21st Century Skills Assessment: Growth	21st Century Skills Assessment: Comparison				
	Trend				
Non-Academic					
Attendance Rate Spring Trend	Suspensions by Race and Gender				
Retention Rate Spring Trend Suspension Trend					
School Climate					
Student Satisfaction Trend Parent and Student Response Rate					
Parent Satisfaction Trend	Employee Response Rate				

Appendix B – JCPS Observation Instrument

DEMO	GRAPHIC COMPONENTS:
	School
2.	Teacher
3.	Grade
4.	Subject
5.	Number of Students
ATTEN	IDANCE COMPONENTS:
1.	Hallways during transitions (students show a sense of urgency/don't show a sense of urgency)
2.	Hallways at the bell (what percentage of students are on time/late)
3.	Students are consequence for being tardy/absent (consequence or warning given/ no consequence warning)
4.	A schedule/plan for the activities that the children do during the day

Appendix B - continued

PERSONALIZED LEARNING COMPONENTS:

Appendix B - continued

5. What are the pupils doing? Please check pupil activities which include: Writing
Drawing Solving problems
Giving choral answers Reading out loud
Reading silently
Asking questions of the teacher Answering teacher's questions
Talking with other pupils Misbehaving
Other, please list:
SENSE OF BELONGING COMPONENTS:
1. A clean classroom
2. Appropriately-sized tables and chairs
3. Classroom and hallways are safe
4. Colorful decorations on the walls
i. Colored decolations on the waits

Appendix B -- continued

5. How does the teacher discipline students (check all that apply)?	
 No discipline observed Raises voice at students Goes through discipline ladder (ie. Green light, yellow light, red light, or other metaphor) Quietly reminds misbehaving students of the rules Separates the misbehaving students from other students Other (specify) 	
6. How does the teacher praise students (check all that apply)?	
 No praise observed Compliments students Hugs/high-fives students Gives the student a reward (sticker, food, sweets, etc.) Other (specify) Observed attitude of the students in the class. Are they engaged? Talkative? Working 	ing
with others? Enjoying the classroom experience?	

Appendix C – JCPS Administrator and Teacher Interview Protocol

Icebreakers: How long have you been a teacher at this campus? How long have you been teaching? What attracted you to teach in a middle school setting?

- 1. How do you define personalized learning? Give an example of personalized learning in your classroom.
- 2. What are some elements that a school can provide to ensure that students feel like they belong?
- 3. What programs do you have here that make children and staff members feel like they belong? How is "sense of belonging" emphasized here?
- 4. What element is most beneficial to your students' academic success? Why?
- 5. How are students encouraged to attend school regularly? Is chronic absenteeism a problem here? Has this changed? Why? How?
- 6. What is a major obstacle in teaching your children?
- 7. What has been the biggest positive change to impact the culture of achievement at your school?
- 8. Any additional information?

Appendix D

NEW STRATEGIC PLAN AND PRIORITY SCHOOLS

JEFFERSON COUNTY PUBLIC SCHOOLS

STRATEGY: PERSONALIZE LEARNING

ENVIRONMENTS AND

EXPERIENCES IN ALL

MASTERY OF ACADEMIC

STANDARDS AND THE

CAPACITIES AND

DISPOSITIONS.

(STRATEGY 1.1.2)

Jefferson County Public Schools (JCPS) is implementing a differentiated support for priority schools. The JCPS Strategic Plan "Vision 2020: Excellence with Equity" is supporting personalized learning in all schools and it is extremely relevant for priority

schools. What is a

priority school? A school that has been identified as persistently low-achieving as defined by KRS 160.346. JCPS priority schools are associated with 15,862 students (929 elementary,

6,390 middle, and 8,543 high) who need personalized learning. Exiting priority status involves meeting Annual Measurable Objective (AMO) goals for three consecutive

years, no longer be identified in the lowest 5% in overall scores, and -for high schools- a araduation rate of 80% or more in 2016.

What are we doing to personalize learning in priority schools? We are implementing personalized learning as a key

strategy in DESIGN PERSONALIZED our strategic AND ENGAGING LEARNING plan. We want for students to CONTENT AREAS FOR EACH reach proficiency STUDENT TO FACILITATE while decrease students in the novice DEVELOPMENT OF LEARNER category. Teaming up with principals.

we are

executing strategies that help answer the following four critical questions associated with personalization of learning: (1) What should each student know and be able to

PRIORITY SCHOOLS DATA

Current Schools: 2

elementary, 8 middle, and 8 high (total = 18). Two high schools exited priority status in 2015— Waggener and Fern Creek High; also, one middle school will be closed at the end of this year-Myers Middle. **Potential Schools Exiting** Priority Status in 2015-16: Knight Middle School, Academy @ Shawnee, and Valley High School. **Student Demographics:** 84% students in poverty (vs. 62% in non-priority schools) and 13% student mobility (vs. 8% in non-priority schools). Teacher Data: 7 years of teaching experience (vs. 12 in non-priority schools) and 80% teacher retention (vs. 89% in non-priority).

do? (2) How will <u>each</u> student learn it? (3) How will we know <u>each</u> student learned it? And, (4) What will we do if a student (a) knows the content or has the skills already, (b) doesn't know it, or (c) doesn't know it and needs more additional support to get there?

In cooperation with KDE,
Assistant Superintendents are
implementing novice
reduction strategies for gap
closure: (1) Standards and
curriculum support, (2)
Instructional support, (3)
Environment and support, and
(4) Continuous improvement
and assessment.

Curriculum and Instruction has focused support on the proficiency of priority school teachers on important strategies such as (1) Professional Learning Communities (PLCs); (2) Differentiated Instruction; and, (3) Assessment Literacy (Design in 5). All these important strategies are promoting personalization of learning in schools: Teams of teachers (PLCs) organized by content, grade, or across grades are analyzing student data/work (assessment literacy) to identify individual learning needs, teachers to adjust their instructional strategies, and to implement before, during, and after-school enrichment. remediation, and interventions (differentiated instruction).

Appendix D

Enrichment serves the purpose of extending learning. Remediation is about reteaching of material not previously mastered when originally taught. Interventions are addressing special needs and learning disabilities and many times include teaching pre-requisite concepts or skills that are needed to understand grade-level content objectives.

Thanks to the work of
Assistant Superintendents and
to prevent more schools to
enter priority status, we have
School Improvement
Academies that support
instructional leadership. We
want to be proactive rather
than reactive.

How will we know if the novice reduction and proficiency improvement strategies are working? We monitor student learning, attendance, and behavior as well as teacher data on a daily, weekly, monthly, quarterly, and annual basis. We use JCPS Data Management tools such as Dashboards that provide "fresh and just-in-time" performance data. The bottom line is ensuring student growth and achievement - increasing the percentage of students demonstrating proficiency, while ensuring our students at the lowest achievement levels

move to higher levels of achievement.

Each priority school student needs to grow in their learning. We look at evidence that demonstrates this growth.

Conclusion. Personalization of learning is about (a) the need to meet <u>each</u> student where they are and (b) the desire to get them where we want them to be (based on clarity of curriculum expectations). We need to close the gap between what students need to know and be able to do (expectations) AND what each student actually knows and can do (reality).

An urgericy for our school system is to differentiate district support for priority schools such as monitoring data/research, academic interventions (e.g., just-in-time professional development), attendance and behavioral, human capital, resource allocation, equity/diversity, communication, and infrastructure. Priority schools need firm support coupled with student and teacher stability to achieve success.

We can make improvements only if we ALL commit to differentiated support for EACH of our 15,862 students in priority schools. It is a moral imperative. We need the entire Louisville community to engage with JCPS priority schools to succeed.

Appendix E - A Working Definition: Personalized Learning

Competency-Based Progression Each student's progress toward clearly-defined goals as northnually assessed. A student advances and earns credit as soon as he/she demonstrates mastery	Flexible Learning Environments Student needs drive the design of the learning environment. All operational elements—staffing plans, space utilization and time allocation—respond and adapt to support students in achieving their goals.	Personal Learning Paths All students are held to dear, high expectations, but each student follows a customized path that responds and adapts based on his/her individual learning progress, motivations, and goals.	Learner Profiles Each student has an up to-date record of his/her individual strengths, needs, motivations, and goals
Ohgoing Assessment In what ways and how frequently should we assess each student's level of mastery within the dimensions that we believe arglessential for his/her success?	Operational Alignment How might we deliver the learning experiences that our students need, with the resources we have available? What flexibility is in the design to enable us to respond and adapt to changing student needs?	Personalized Learning Plans How can we ensure that each student has a learning plan that takes into account his/her strengths, changing needs, motivations, and goals?	Strengths & Needs How do we capture each student's - current level of mastery within each of the dimensions that we balieve are essential for his/her success (e.g. academic standards, skills)? How can we highlight students' academic gaps to draw attention to their individual needs?
Individual Advancement Can individual students marsue new learning experiences as soon as they bave masteredithe prerequisite content? How can students attain course prodictiased on master§?	Staffing & Roles In what ways might we structure teacher and other educator roles to support our instructional vision? What flexibility is needed to enable our staff to respond and adapt to changing student needs?	Varied Learning Experiences (Modalities) Whattypes of experiences (e.g. complex tasks, experiential learning) do students need to achieve their goals? What are the ideal methods for del vering (e.g. small group instruction, one-on-one tutoring, online learning) these experiences?	Motivations How might we support each student in understanding and articulating his/her interests and aspirations?
	Time Allocation In what ways might we maximize the time each student spends pursuing his/her goals? How might our student and staff schedules respond and adapt to changing student needs?	Student Ownership In what ways might we enable students to develop and manage their own learning paths?	Information & Feedback In what ways and how frequently, might we provide timely, actionable Information and feedback to students, teachers, and families?
	Space Utilization How can the design of the physical space support our instructional vision? Can we use spaces beyond our walls, and if so, how?		Goals How might we support each student in setting personalized goals within each dimension that we believe is essential for his/her success? In what ways and how frequently might we ask students to reflection their progress and adjust their goals accordingly?
	Grouping & Connections How should we group students to enable the varied learning experiences we hope to offer and modify to their changing needs? In what ways might we facilitate personal connections among students, and between students and adults?		

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