

## ***Making Time for What Matters Most***

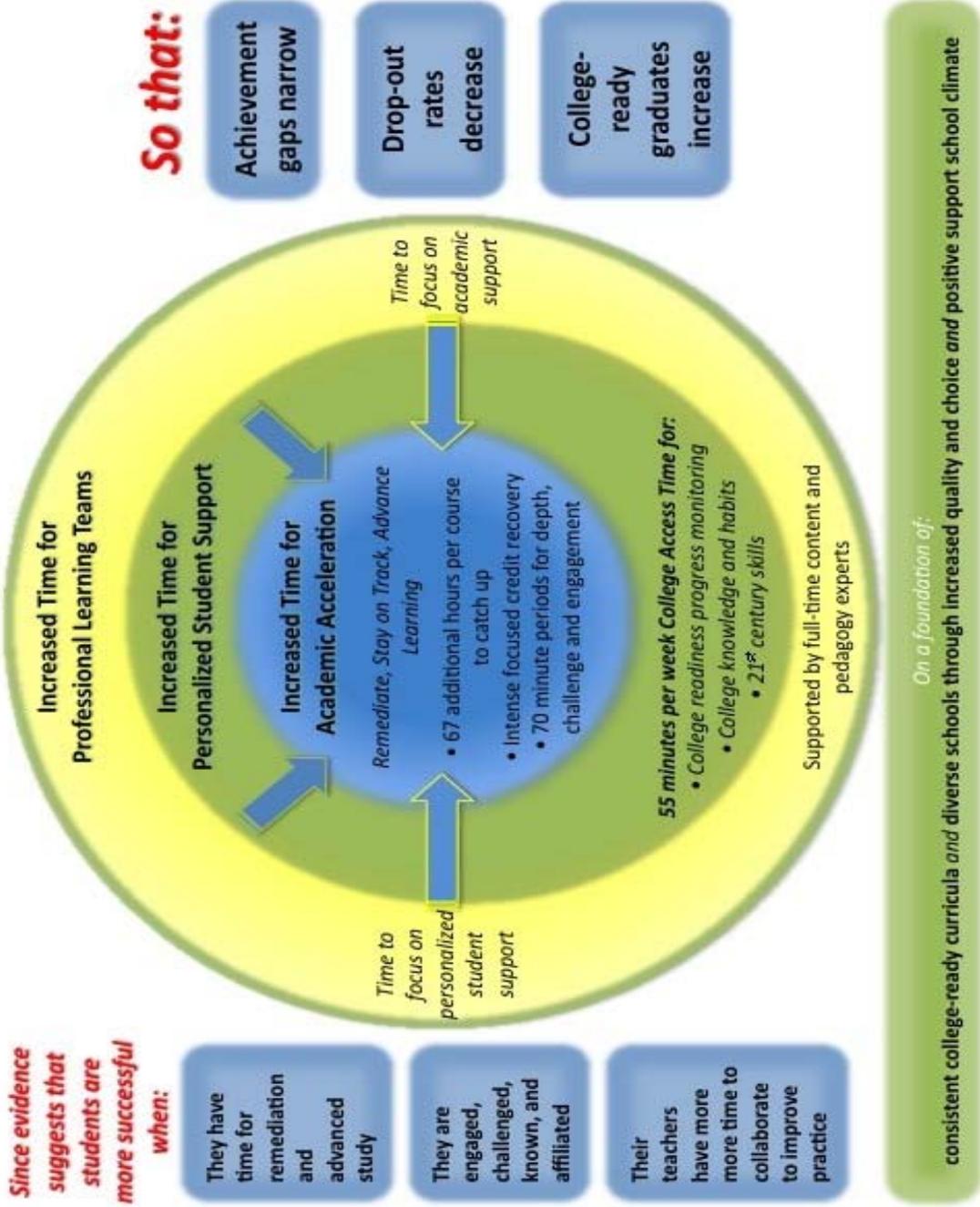
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### **Introduction and Alignment With i3 Priorities**

*Making Time for What Matters Most* is an i3 Development project of the Jefferson County Public Schools (JCPS) in Louisville, Kentucky that will demonstrate the power of a coherent targeted strategy to effectively use increased learning time in core subject areas to turn around persistently low-performing high schools (Priority 4b). In addition, it will promote college access and success (Priority 6). Our targeted strategy includes three synergistic practices: (1) increased learning time; (2) increased time for personalized student support; (3) increased time for teacher learning to improve instruction. The linchpin is to combine reduced teaching loads afforded by a 5-period trimester schedule with increased instructional time in English, reading, math and science for students performing below grade level. This intervention provides the means to accelerate struggling students' mastery of core content and put them on track to graduate college ready. Additional practices are needed however to ensure that the increased time is used to students' greatest benefit: time in the school week is created for teacher advisors to closely monitor the progress of small groups of students towards graduation and post-secondary education; and time in the school week is created for teachers to collaborate on improving the effectiveness of their instruction. Three research premises support this targeted strategy: (1) Successful students need time for remediation and acceleration (Miles & Frank, 2008); (2) Successful students are engaged, challenged, known and affiliated (MDRC); (3) Effective teachers need time to collaborate to improve practice (Darling-Hammond). Further, our strategy has enjoyed documented success in a number of our schools that used the flexibility the 5-period trimester schedule affords to increase instructional time for reading by 50% for struggling students (Munoz, 2007; Munoz, Guskey, & Aberli, 2009).

# We Will: Make Time for What Matters Most

Through:



## A. Need for the Project

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Jefferson County Public Schools (JCPS) is a high-need, high-effort, high-capacity, school system with a long commitment to innovation. Over the last several years significant progress has been made to close achievement gaps, increase graduation rates, decrease dropout rates, increase the effectiveness of our staff, and to inform decision making with a robust data system. Strategic plans and efforts are underway to continue and advance this crucial work. This work is urgent because the distance between our aspirations and the current achievements of some students remains too great. We are optimistic and confident, because a unique set of circumstances and approaches have come together to drive rapid progress.

The six high schools targeted in our *Making Time for What Matters Most* i3 Development project share many characteristics with other low-performing schools, including over-representation of low income and minority students, lower than average attendance and comparatively higher number of disciplinary incidents. They are making progress, but not rapidly enough. Research suggests that increasing learning time and maximizing its effective use is a critical catalyst for improvement. Therefore, after careful research we shifted from a traditional 7-period day to a trimester in our targeted schools to increase learning time for struggling students to catch up and graduate college ready, increase time for teachers to meet with students in small groups for personalized support, and increase time for teacher professional collaboration to improve practice. We did all of this without incurring significant costs.

Research suggests that many well-meaning thoughtful improvement programs have been constrained by too-little time, incoherence, incompleteness (Newmann et al., 2001). We will make the case that each of the program elements are powerful, but that pursued in interaction and with clear intentionality, their effects are magnified. While the immediate audience for this Development proposal is our six persistently lowest performing high schools, we mount our effort in the context of a clear coherent, values-driven, results-oriented, data-informed district-wide K-12 strategic plan. *Making Time for What Matters Most* is exceptional because it applies

promising research-based strategies to make the most effective use of this added learning time for students and it employs a rapid prototyping strategy for continuous improvement. Our strategy is designed to be cost-effective, coherent, replicable and scalable across similar large urban school systems.

### *Goals, Objectives and Outcomes*

The super-ordinate goals of the project are to improve overall student achievement, narrow achievement gaps, strengthen students' college readiness skills and increase the percentage of students who graduate and the percentage who go on to college. In order to achieve these outcomes, our goals and objectives include the following:

*Goal 1: Provide structures and supports to facilitate student mastery of academic material and successful completion for all core courses in one year or less.*

Objective 1A: Improve ongoing monitoring of student course progress to enable rapid response to individual students' academic needs.

Objective 1B: Develop assignment/reassignment protocols such that students are provided options of acceleration, remediation, credit recovery, and increased time for study based on individual students' progress and needs.

Objective 1C: Increase students' perception of academic challenge.

Objective 1D: Increase students' academic self-efficacy.

Objective 1E: Increase the number of students who successfully pass core courses in one year.

*Goal 2: Provide a range of personalized supports to students to increase engagement in school and promote college readiness*

Objective 2.A: Ensure focused, evidenced based use of College Access Time to advance college-ready skills, monitor student progress and increase student's sense of affiliation with adults and peers.

Objective 2B: Increase students' knowledge of and use of college-ready skills and habits

Objective 2.C: Improve students' sense of affiliation with adults and peers

Objective 2.D: Strengthen peer-to-peer relations and perceptions of peer support, particularly within career themes.

*Goal 3*: Improve teachers' pedagogical and student support practices to maximize the effectiveness of increased learning time.

Goal 3.A: Increase collaboration among teachers within and across content area in school.

Goal 3B: Increase teachers' perceptions of self-efficacy with respect to content-based knowledge for teaching.

Goal 3C: Improve teachers' instructional practices with respect to engagement and challenge level in core content instructional time.

Goal 3D: Increase teachers' knowledge and attention to unique student needs and support during instruction and College Access Time.

#### *Explicit Strategies*

*Making Time for What Matters Most* addresses Absolute Priority 4b with a targeted strategy to increase and augment learning time for core content subjects in order to turn around six persistently low performing high schools. Our strategies are based on the following chain of logic. (1) Students need additional focused learning time. In order for them to benefit from that time, instruction must be intellectually engaging and challenging. (2) To engage successfully in learning they must be prepared with 21<sup>st</sup> century college-ready skills, habits and dispositions. They must have a positive sense of affiliation with peers and adults. (3) Orchestrating engaging challenging instruction for students who are intellectually, socially and emotionally prepared to learn depends upon teachers having time to learn from one another in professional learning communities and from experts. Therefore we will: increase time for learning; increase time for personalized student support; and, increase time for professional learning communities.

Our program is based on a rapid-prototyping and refinement model and our evaluation will focus not just on outcomes, but on the interactive conditions that support and constrain the program elements both in practice and impact. This design is exceptional because it is intended to examine innovation in practice to generate knowledge for use (Bryk, 2009).

### *Increased Time for Learning*

We have already implemented coherent district-wide K-12 inquiry-based mathematics, science, literacy and social studies curricula based on a clear, commonly-held vision of rigorous, standard-based teaching and learning. We are currently reviewing our mathematics and literacy curricula to determine changes that will be needed to meet the expectations of the Common Core standards that have already been adopted by the Commonwealth of Kentucky. However, we recognize that high-quality rigorous curriculum and a district structure for diverse, theme-focused high schools is just a foundation. Without time and support, the structure for student success is incomplete. We found that the flexibility of the trimester would enable us to target effort and resources for that support structure in unique ways without adding burden to an already overstretched budget. It does so with five, seventy-minute courses per day for each of three 12-week trimesters. Students may earn 30 credits in four years rather than 24 in the traditional seven, 48-minute periods. First, this enables in-depth engaging learning in a longer period. Second, it allows students to earn full course credit in two trimesters but also creates the opportunity to extend courses over all three trimesters to give struggling students time to catch up and join their on-grade peers. Scheduling decisions are made by school leaders who determine which students will benefit from augmented learning time and what trade-offs must be made to allocate more time/staff to core subjects. Leaders need guidelines to follow to make such decisions, including data-based criteria for assigning students to different course options and strategies they can use to shift resources to core subject instruction. Therefore, we will employ four increased learning time strategies each of which add at least 67 hours of learning time in the school year. We can anticipate students need to pre-schedule the learning across a three trimester course especially designed to meet the needs of struggling learners. For many students who struggle in both literacy and mathematics, this could mean the equivalent of adding almost twenty days to the school year of pure instructional time. It also allows us to respond just-in-time to struggling two-trimester students after the first trimester and reschedule the second half of their course across two trimesters. We can use the third trimester for course recovery. We also

plan to develop *immersion* courses that will allow lagging students to spend even more time in core subject blocks, where they will be able to cover course material using a larger block of time (for instance two, or even three, 70 minute periods in a day) to address a single subject in a course form that integrates individualized, various and novel learning strategies to boost student achievement. The goal will be to preempt failure by placing students in the appropriate supportive course to catch up before they do poorly, get discouraged, give up or waste time repeating courses. We will also invest in building the scheduling expertise at each school to wring the most out of available time. To support this effort, each school will designate a Master Scheduler who will receive an intensive “Boot Camp” in scheduling in addition to follow-up PD after school.

#### *Increased Time for Personalized Student Support*

Research suggests that additional supports are needed to maximize the effect of increased learning time. Therefore, we will use the flexibility of the trimester to devote time to a weekly fifty-five minute, structured and focused *College Access Time* (CAT) period. In the CAT period twenty students will be paired with a supportive adult who stays with them across their four years of high school and with peers who share similar interests within their career theme related *School of Study*. The CAT provides students regular time with an adult who is “*On their case, and on their side.*” In addition, students have the opportunity through surveys and focus groups to express concerns about the school that the CAT could address. The CAT curriculum will address several project goals, including (1) Monitoring of students’ academic progress and intervening with targeted subject-specific remediation; (2) Development of career interests and motivation and ensuring appropriate related college bound course taking and ACT preparation; (3) Development of 21<sup>st</sup> Century Skills including study skills, persistence, independence, adaptation to change, digital literacy, effective communication, inventive thinking and fostering motivation to high achievement. (4) Development of college knowledge and support for application and financial assistance planning. To maximize the effect of *College Access Time* the project will devote resources to expert consultants from Education Northwest, with a long history

of success providing professional development and technical assistance for CAT-type curriculum planning. Through implementation of this program in two other schools, we have found that best practice is to have one teacher whose sole job is to manage the CAT process throughout a school – they will act as guides, support and provide insight into specific problems and opportunities being addressed at the CAT-room level. We also plan for CAT Coordinators to work with teachers to use data and feedback from rapid-prototyping mechanisms to ensure that there is basic fidelity of the CAT component across the schools and for continuous improvement. Experts at Education Northwest will provide technical assistance in developing methods. To support effective CAT implementation we will hold a summer institute for school leaders to refine practice based on rapid prototyping and other data as well as follow-up PD throughout the year.

#### *Increased Time for Professional Learning Teams*

For the 3x5 trimester to be effective time must be used differently. Achieving the necessary high level of engagement and challenge in every day instruction requires advancing teachers' pedagogical content knowledge. Several promising areas of research support the *Making Time for What Matters Most* professional learning strategy. We know that compared with higher performing countries U.S teachers spend relatively more of their working day in direct contact with students and less time in professional learning with colleagues. We also know that professional learning about content specific instructional strategies in the context of actual practice and interpretation of student work appears to be more effective than generic, workshop based professional development. Therefore, we will make subject-area-specific collaborative time a “non-negotiable” part of school scheduling. Increased focused time for learning, collaboration, reflection and common planning will enable a continuous improvement approach to teacher development using timely, rigorous and practical student data to measure effectiveness at the student and class level. Combined, this adds a minimum of approximately 120 minutes of professional learning time per week. In addition, as teachers realize the benefit of professional learning in increased student performance, we hope to negotiate with the teachers' union

voluntary reclamation of a portion of contractual preparation time for collaborative planning. We have already done this successfully in another school.

#### *Program Support Components*

School-Year Professional Learning Teams: Cross-disciplinary learning teams will meet during common planning time for approximately one hour each week to address the personalized learning needs of students. The benefit of this collaboration will be realized in honing the focus of CAT and within the content courses. In addition, teachers who teach the same course will meet in learning teams that focus on instruction in order to strengthen *knowledge for teaching* and related diagnostic and formative assessment strategies that get the most out of the 70-minute period and focus on ways to reach low achieving learners. These teachers will be released for half-day meetings using substitute coverage. These learning times will take place every other week, other than at the beginning of the year and during testing periods. Resource Teachers, will facilitate professional learning teams and provide in-class support. New teachers will have several days during the year to sit in on classroom of experienced teachers.

After-school Content Workshops: Teachers who teach within the same content area will meet in four, 2-hour workshops during the school year to examine and hone alignment, expectations and strategies across years and improve strategies for effective use of increased learning time.

After-school College Access Time Workshops: Teacher will meet in three 2-hours sessions to hone effective use of college access time to support college readiness skills.

Resource Teacher Growth: We will employ expert consultants in each core content area to provide four days of professional development to develop the pedagogical and adult learning skills of Resource Teachers, and learn the latest evidence-based practices.

Summer Institutes: Each summer we will hold a 6-hour, 4-day summer content institute. This will provide sharply focused time to apply the lessons learning from our rapid-prototyping process to improve instructional methods and materials. It will be facilitated by resource teachers with an eye toward building school-based leadership capacity so that reforms are sustainable.

Our proposed project uses rapid-prototyping -a method well suited to generating knowledge for use: it allows for developing products in ‘real time’ within normal cycles of school activity and in collaboration with the staff involved; and achieves high quality through multiple iterations of field testing and refinement. (Bryk, 2009).

## **B. Existing Research Evidence/Significance of Effect in Support of the Project/Magnitude**

*(1) Research-based findings support the proposed project.*

Michael Fullan observed early in the school restructuring movement that it “*is all about time—making time, taking time, finding more meaningful ways to spend time*” (1993, p. 60). Since then, the knowledge base on the effective use of instructional time has expanded to include compelling documentation of the time allocation practices used by schools that succeeded in increasing student achievement. Across successful schools, research reveals that school leaders established three major priorities for allocating existing instructional time and resources: (1) core academics and literacy; (2) individual attention and personal learning environments; (3) professional development and collaboration (Darling-Hammond, 2001; Miles & Frank, 2008; Odden & Archibald, 2001). Researchers point out that these schools aligned time and resources with what they are held accountable for: student mastery of discipline-based knowledge and skill (Miles & Frank, 2008). They devoted more time to core academics, departing from the traditional practice of allocating the same number of instructional periods to all subjects regardless of their importance (Roza, 2009) and approaching what our counterparts in other post-industrial countries devote to it (National Education Commission on Time and Learning, 1994).

Archibald’s (2001) study of a restructured high school that went from the lowest performing school in the district to the highest illustrates how successful schools restructure time to achieve learning gains. They created longer, uninterrupted periods of

instruction for core courses -two 135-minute English/social studies and math/science blocks- thereby adding more than 20 minutes per day to each core course. Similarly, Talent Development High Schools schedules all entering students for double doses of math and English in order to help them catch up and get on track to graduate. This feature of the model was instrumental to increased achievement by the end of 9<sup>th</sup> and later grades (Kemple, Herlihy & Smith, 2006; McPartland, 2006). Other research strongly suggests that schools that serve large concentrations of poor students were able to obtain achievement gains because they not only increased instructional time but also created large and/or regular blocks of time for embedded professional development and collaboration (Archibald & Gallagher, 2002; Darling-Hammond, 2001; Darling-Hammond, Aneess & Ort, 2002; Friedlaender & Darling-Hammond, 2007; Kemple et al., 2006). Adequate time for professional collaboration seems to ensure that teachers are able to use increased instructional time skillfully and in a targeted manner. This may be especially true for schools that are not able to compete successfully for the strongest teachers or experience high rates of teacher turnover, conditions often found among large, urban schools. Both the successful Talent Development High Schools and First Things First high school reform models organize interdisciplinary teacher teams around a group of students and daily planning periods shared in common (Kemple et al., 2006).

Finally, devoting time to personalizing instruction and providing more individual attention to students appears to be important in increasing students' sense of belonging and lowering dropout rates; and creating adult advocates is one effective way of providing individual student attention (Dynarski et al., 2009). Friedlaender & Darling-Hammond's (2007) study of California schools that succeeded in reducing the achievement gap among student ethnic groups found that these schools created advisory systems that assigned one adult to a small group of students for multiple years. Advisors got to know students well, monitored their progress, and made connections with parents. In the First Things First model, each staff member becomes an

advocate for 15-20 students, remains with them over the course of high school, and involves parents in setting students' academic goals (Kemple et al., 2006).

*(2) Promising prior results suggest study is warranted.*

The majority of our high schools have taken major steps towards increasing time for core subject instruction and personalizing instruction. Eleven of our 21 high schools adopted the 5-period trimester schedule which creates longer periods of instruction and reduces teachers' class load to four instead of five classes or 120 instead of 150 students. Analysis of our high schools' schedules (Munoz & Shields, 2009) showed that schools that replaced the traditional 7-period day with a 5-period trimester schedule not only gained longer instructional periods for more in-depth instruction, they increased the total amount of instructional time for selected math and English classes. Nine of the eleven schools created a 3-trimester 9<sup>th</sup> grade English course for students who are below grade level, devoting 12,600 minutes/year to literacy instruction in comparison to 8400 minutes using just two trimesters or 8640 minutes using two semesters under the traditional 7-period schedule. While teachers' instructional methods changed at the same time that instructional time increased, documented learning gains, which included narrowing the gap between percentage of white and black students who scored 'novice' on state reading assessments, are most likely attributable to both (Guskey, Munoz & Aberli, 2009).

*(3) The project is likely to have a positive impact.*

The targeted intervention we propose to develop and deploy in six low-performing schools combines three strategies for maximizing the effective use of the instructional time and day. Each has been found to be a high-leverage strategy with predictable and positive effects on student outcomes. In combination, the strategies have been found not only to increase student achievement in schools serving high concentrations of poor students but also reduce the achievement gap among ethnic sub-populations. Further, Jefferson County high schools have already implemented components of the intervention to be developed with documented success:

more than half of the high schools have reduced student loads, lengthened instructional periods, and increased instructional time for 9<sup>th</sup> grade English by 50% for struggling students with the result that decreased numbers of students score at the lowest levels on state reading assessments. The gap between black and white students on the assessments was reduced by 2/3rds.

### **C. Experience of the Applicant in Implementing Proposed Project**

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Two of the target schools for the i3 Development funds, Western and the Academy@Shawnee, are important in showing the district's plans for improvement of low performing high schools can and does work. These schools are both Title I schools classed as NCLB in need of improvement tier 5-2, and are in the bottom 5% of the state on terms of NCLB performance. In Jefferson County overall, African Americans make up about 20% of residents. At Western High School 62% are African Americans, virtually all the remainder are white. At Shawnee, the case is similar: 59% of students are African American and 39% white. Free and Reduced Lunch rates at both schools are over 82%, compared with an average district rate of 51%, for all high schools.

Recognizing the issues and challenges these schools are facing, the district began the process of whole school reform. Both have switched to the 3x5 trimester schedule. A positive indicator is success in recruiting and retaining highly qualified teachers with Western having 98.7% and Shawnee 92.2%, compared to a district average of 98.6%. This process is ongoing. Both schools are making impressive early gains in a number of critical areas, despite the recentness of the reform efforts.

*Western:* Overall reading scores have increased 25.5% in the past two years with whites and African Americans showed similar gains. Math scores have increased 10% with gains slightly better for African American than white students, resulting in gap closure between the two groups of approximately 3.1%. Students qualifying for Free and Reduced lunch achieved a 23% and 8% improvement in reading and math respectively. When disaggregated by race, Free and Reduced Lunch, and exceptional child education (ECE), the gains were vastly greater when

compared to district averages in each category. Over the past three years the graduation rate has risen about 9%, and approaches 68%, compared to a district average of slightly less than 75%.

*Acadamy@Shawnee:* It is early in the reform to see significant progress with this school, but indications are that early adoption of the aims and methods described this proposal are beginning to show benefits. One sign is that the gap in reading scores between whites and African Americans was reduced year over year by 12.2%, compared to a district average gap reduction of (-.84)%. The gap in math between the groups also closed (1%) but it appears to be due both to gains amongst African Americans, and lower scores among whites. The graduation rate moved up 6% year over year to nearly 62%.

Over the last two years the Trimester has been adopted in 12 comprehensive high schools. In the 2008-2009 school year, 2028 students took three terms of English and 1394 took three terms of mathematics. In 2002-2003 which was the baseline year for Ramp Up, a literacy project designed to accelerate lagging students, there were 12 Ramp Up high schools with 3082 students participating and this number has remained fairly constant since then. The district has learned from past performance, both positive and negative, that a certain group of targeted approaches has a high likelihood of increasing overall student achievement and promises to close gaps between groups of students. What we are finding in the literature and in practice is that none of these approaches by themselves are sufficient to bring about the changes necessary to impact student learning and school climate, but that taken together there is a mutually reinforcing emergence, or synergy, that transforms the learning culture, improves the school culture and shows promise as a set of methods that is transferable to other schools. Key to this group of approaches is the 3x5 trimester plan and the attendant components we have outlined in this paper. An example where these strategies have been employed and are showing signs of success is Doss high school. Doss has already adopted the intervention described in this proposal and the cumulative effect of trimester scheduling in combination with CAT and PLCs have impacted overall year over year student gains in reading of nearly 25.5% and 9.9% in math.

## **D. Project Evaluation**

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Edvantia, Inc. will conduct an independent process and outcome evaluation. With a long history of supporting educational reform and improvement, Edvantia brings an experienced staff and other resources to support the evaluation. Carol Nixon, Ph.D. will serve as the lead evaluator responsible for evaluation design and implementation; active collaboration with the JCPS project implementation team, internal evaluators, and school administration; analyses; and report development (refer to Appendix C for her CV). Dr. Nixon has more than 18 years of evaluation experience across education and social services settings, including responsibility for projects funded by federal agencies including U.S. DOE, SAMHSA, OJJDP, CDC, and HRSA.

### *Overview and Appropriateness of the Evaluation Methods*

The process and outcome evaluations are based upon the projects' overarching mission, goals, and objectives; the unique local context of JCPS and of each of the targeted schools; and several foundational evaluation approaches. With low-performing status targeted schools pre-determined and interventions school-wide, random assignment is not possible. Therefore, we propose a quasi-experimental design utilizing propensity score matching (Rosenbaum & Rubin, 1983) to estimate intervention effects as well as multilevel modeling to tease out the unique relationships of context, student characteristics, and process with student outcomes. The evaluation will embrace a tripartite model that relies on integrated, simultaneous measurement of structure, process, and outcomes (Salzer, Nixon, Schutt, Karver & Bickman, 1997) using a mixed methods approach (Creswell & Plano Clark, 2006). The evaluation will incorporate multiple sources of information and methodologies to triangulate findings and provide a more comprehensive understanding of implementation and project effectiveness. We will develop mechanisms to actively engage key stakeholders in the design, implementation, and interpretation of findings and incorporate a modified participatory action research framework to increase (a) buy-in of school personnel; (b) reliability, validity, and relevance of data; (c) use of findings for decision-making; and (d) infrastructure development for sustainability after funding

ends (e.g., Patton, 2008). Finally, Edvantia's researchers will collaborate with IES Evaluators to ensure compliance with all evaluation requirements including participation with technical assistance. All protocols will be approved before start-up by JCPS and Edvantia's Institutional Review Board (IRB). As shown in the project's detailed budget and justification, approximately 15% of the project's budget is allocated which provides sufficient resources to carry out the evaluation.

*Process Evaluation: Providing Progress and Performance Feedback*

The primary aims of the process evaluation are to provide frequent feedback to JCPS and targeted schools to enable rapid prototyping and quality improvement, document thoroughly the structures and processes of project implementation, and adjust evaluation protocols based on experience and the stakeholder input. The primary questions include the following:

1. To what extent are the intervention components implemented as planned (i.e., prototyping plans and progress on goals/objectives) and with fidelity (i.e., consistent with evidence-based practice)? What is the status on reaching JCPS/ goals and objectives?
2. What are the adaptations or deviations from the original plan, why, and what are the antecedents and consequences? How can barriers be minimized and best practices shared?
3. Are interim student outcomes related to contextual, student, and implementation characteristics and activities? How do these data inform rapid prototyping and improvement?
4. How do teacher-to-teacher relationships change within and across content areas and relate to interim student outcomes?

Multiple methodologies will be used to collect Multiple methodologies will be used to collect a range of proximal indicators that are strongly related to key long-term educational outcomes such as achievement, graduation, and college readiness. These are briefly outlined in the table that follows. For example, of particular interest is the extent to which immersion and remediation allowed by block scheduling is associated with student short- and long-term academic outcomes. We also will examine several intermediate student indicators that cut across multiple goals and objectives and broadly measure student engagement in school including

attendance, discipline referrals, and perceptions of school climate (e.g., safety, relationships, academic engagement, environment), among others. While the relationship between the proximal outcomes selected as indicators and the longer-term outcomes is substantiated in the literature, the outcome evaluation will document these associations within the local JCPS school communities.

Goal /Obj	Indicator	Methods & Timeline (O, F, S)*
1A	Students who are struggling at the end of the first trimester are provided additional supports (time, recovery, etc.)	Document monitoring and decision process (O); Sample case reviews (S); School personnel interviews (F, S);
1B	Students are provided acceleration and enrichment opportunities	Document monitoring and decision process (O); Sample case reviews (S); School personnel interviews (F, S)
1C & ID	Students report increased perceptions of academic challenge and self-efficacy	Surveys: School Climate (F); JCPS CC (S); Student focus groups (S); Attendance
IE	Pass rates by subgroups increase over time	Pass rates (O) & Course grades (O)
2A	CAT is scheduled weekly for students	CAT logs, i.e., frequency and content (O); School personnel interviews (F, S)
2B	Students report increased knowledge and self-efficacy related to college-ready skills; Teachers observe increased skills	Surveys (S); Focus groups (S); Embedded assessments for sample of students (F, S)
2C	Students perceive improved and positive adult-to-students relationships at school	Surveys: School Climate (F); JCPS CC (S); Student focus groups (S) ; Attendance
2D	Students report improved and positive peer-to-	Surveys: School Climate (F); JCPS CC

	peer relationships at school	(S); Student focus groups (S); Attendance
3A	Teachers report more time for collaboration; Teachers' demonstrate strengthened social network relations over time	Documentation logs (O); Social Network Analysis (Fall Year 1; Spring Years 2 & 4); School personnel interviews (F, S)
3B	Teachers report increased self-reported efficacy	School personnel interviews (F, S)
3C	Student self-reports of engagement and satisfaction with teaching	Surveys: School Climate (F); JCPS CC (S); Student focus groups (S);
3D	Teachers report increased awareness of and action related to students' unique needs	Surveys: School Climate (F); JCPS CC (S); School personnel interviews (F, S)

*\*Measures will be collected annually unless otherwise noted; F=fall administration, S=spring, and O=ongoing data collection. JCPS CC refers to the districts' Comprehensive Survey administered annually to students, parents, and school personnel.*

Qualitative data collected through interviews and focus groups will be coded thematically to identify prevalent themes and emerging issues (e.g., Trochim, 2000). NVivo will be used for data management and supportive analyses. To measure changes in collaboration among teachers and the relationship to student outcomes, we will conduct a social network analysis (SNA) at the beginning of Year 1 with follow-ups in Years 2 and 4. Network structure has been found to be related to spread of innovation in school settings and more cohesive networks of teachers are associated with improved student outcomes (Penuel, Riel, Krause, & Frank, 2009). SNA examines the structure and patterning of relationships among a set of persons or units (i.e., departments, agencies) by taking into account those relations or ties that exist as well as those that do not among these various groups (Knoke & Kuklinski, 1982). SNA involves surveying participants and then analyzing the data with specialized software designed to yield traditional measures of network structure including density, centrality, fragmentation, and prestige.

### *Outcome Evaluation*

The outcome evaluation will examine the effectiveness of the intervention components in raising achievement for all students and narrowing achievement gaps. In this sense, multiple analyses will be conducted to assess the differential impact of the intervention on NCLB sub-groups (i.e., race, socio-economic status, limited English proficiency, disability). It also will highlight any disparities in outcomes as well as best practices. The primary research questions include:

1. What are the average effects on key school intermediate and long-term outcomes relative to comparison schools and students (e.g., attendance, pass rates, course grades, dropout, achievement, college readiness and application)?
2. What differential outcomes are experienced by students in the target schools? Do discrepancies relate to contextual, student, and implementation characteristics and activities?
3. Is a best practice model identifiable that is scalable to other settings?

The outcome evaluation will rely on the data collected in the process evaluation as well as a myriad of data collected by the district (e.g., achievement, attendance, suspensions, discipline referrals, race/ethnicity, mobility, school climate perceptions by multiple respondents, graduation, etc.). While course grades and pass rates will be used as proximal achievement indicators, long-term achievement and college-readiness will be operationalized as student performance on the ACT-related tests for English, math, and reading including ACT Explore for 8<sup>th</sup> graders, PLAN for 10<sup>th</sup> graders, and the ACT for 11<sup>th</sup> graders. ACT's College Readiness Benchmarks will be used in this evaluation. The College Readiness Benchmarks are the minimum ACT test scores required for students to have a high probability of success in credit-bearing college courses—English, social sciences courses, Algebra, or Biology. In addition to the Benchmarks for the ACT<sup>®</sup> test, there are corresponding EXPLORE<sup>®</sup> and PLAN<sup>®</sup> Benchmarks for use in the eighth and tenth grades, respectively, to gauge their progress in becoming ready for college. The ACT-related scores will provide the most stable measure over multiple years as the State's test has undergone multiple revisions.

To determine the overall effect of the intervention, propensity score matching (PSM) (Rosenbaum & Rubin, 1983) will be used to create a unique comparison group. PSM controls for bias when random assignment is not possible and can accommodate a large number of covariates. We will utilize a two-level approach to first match schools and then students within schools. School- and student-level covariates will be selected based on theory, research, and experience. Data missing not at random will be addressed using multiple imputation. Propensity scores will be estimated using the technique that provides the best balance of covariates and the quality of the match will be assessed through sensitivity analysis (cf. Ho, Imai, King, & Stuart, 2007). To explore the relationships between contextual factors, implementation and intervention processes, and outcomes, we will provide summative descriptions of proximal and longer-term outcomes and also examine whether groups of students experienced differential outcomes using multivariate analyses (e.g., discriminant analysis, canonical correlation analysis, structural equation modeling). We will extend the analyses by testing a series of multilevel models (Bryk & Raudenbush, 1992) specified to tease out the unique contributions of covariates including specific contexts, student characteristics, and intervention practices and processes. Both techniques will be used to explore whether outcomes vary by race, literacy, socioeconomic status, and disability as well as by key intervention characteristics. The findings should illuminate best practices that can be scaled to other schools in the district.

*Reporting: Providing Sufficient Information to Facilitate Further Development, Replication, or Testing in Other Settings*

Regular and ongoing analyses and reporting are critical and will allow frequent performance feedback and progress monitor for school and district personnel and will enable data-driven and evidence-based adjustments to the interventions. Edvantia will work with staff from JCPS' Department of Accountability, Research and Planning to develop a participatory action research approach to thorough engage stakeholders and to establish the most effective mechanisms for feedback. In addition, evaluation information will be disseminated informally through meetings and technical assistance contacts. The content of these reports will vary based

upon project needs and evaluation timelines. Evaluation updates will be provided monthly through project team meetings and written reports. More formal comprehensive reports will be disseminated at key points collaboratively established with the district. Evaluators will prepare a formal annual report describing program implementation, findings, and recommendations and a comprehensive formal evaluation report at the end of the grant. All formal written evaluation reports will adhere to *The Program Evaluation Standards* (1994). Finally, JCPS and Edvantia personnel will collaborate to present our evaluation findings at state and national conferences and in academic and practitioner journals. We also will collaborate with IES and other funded i3 sites to synthesize best practices.

## **E. Strategy and Capacity to Scale**

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*Impact and Reach:* This project will reach approximately 5,800 students per year. As part of the district's HS restructuring plan and its plans for turning around these low performing schools, all of the student and teacher scheduling components of plans contained herein will be implemented in the 2010-2011 school year and begin to have impact immediately. As implementation is refined impact will grow continuously.

*Capacity to Scale:* JCPS has extensive large project management experience. Two large scale projects implemented in the last four years, the GE Foundation grant and a community-wide initiative, Every 1 Reads, are excellent examples of large-scale projects that required extensive managerial and partnership expertise.

When Every 1 Reads began four years ago, there were 18,000 below grade level readers in the district. After four years and \$8 million, more than 10,000 trained volunteers have tutored and mentored students reducing the percent of struggling readers from 18% to 9% in the district.

The district has successfully managed a five-year, \$25 million *Developing Futures in Education* from the GE Foundation awarded in 2005 to develop rigorous district-wide instruction in math and science, implement curricula based in world class standards. Because of that

success JCPS has recently been awarded an additional \$10.5 million from the GE Foundation over the next three years to further the math and science initiative started with the original grant. Most significantly, the project was jointly led by the school district and the Jefferson County Teachers Association (JCTA).

In 2009, JCPS was awarded more than \$93 million in grants, awards and contracts from foundations, corporations, and the federal and state. The cornerstone of all these projects is partnerships and collaborations with community partners. Currently the district's partnerships number more than 600 and include community-based organizations, local businesses, faith-based organizations as well as large corporations and foundations.

Beyond curriculum and culture, however, one of the essential factors of great schools is providing all students with equitable access to the programs that schools offer. During the past year, we worked at multiple levels to ensure that our student assignment plan enhanced both school diversity and quality. We assembled design teams from throughout the community to help school staffs develop high-quality, exciting magnet programs that will attract students and parents from across the county. Although it will take four to five years to see the full impact of these changes, we have set in motion a plan that will strengthen the academic quality of all our schools and nurture the human diversity that we, as a community, value so deeply.

*Replicability: MT is replicable and cost effective across a variety of schools and districts.* We will demonstrate the influence increased learning time on key student outcomes, when accompanied by increased time for personalized student support and increased time for instructionally focused, expertly facilitated professional learning communities. The process and summative evaluation, rapid prototyping design, will able us to understand not just the extent of impact, but the conditions that promote and constrain success. As a result, with technical assistance from Education Northwest will produce a formal guide to best use of increased learning time that will make dissemination more widespread and of practical applicability.

In addition to these recommendations, at the end of the grant period Education Northwest will collaborate with JCPS to produce user guide to effective use of increased learning time that

will describe lessons learned about the affordances and challenges in the processes of continuous improvement. We will disseminate results at state, regional and national conferences, and publish articles. We also plan to host periodic seminars for other interested districts. An explicit description of the rapid prototyping methodology to reach the process description is in the appendix. Required additional elements for replicability include strong common core-aligned foundational curricula, common commitment among leadership, and a skilled professional development staff able to provide expert advise and facilitation for teacher professional development.

The project budget, including anticipated cost-share, is nearly \$6 million. However, this includes evaluation and technical assistance costs of about \$1 million. Therefore, we believe it could be replicated in 6 schools similar to those we are targeting for about 5.2 million, over 4 years. This comes to a per student cost of approximately \$237 dollars per year, though larger schools could achieve some economies of scale to further reduce the costs. Using this as an estimated cost for achieving a ramp up to 100,000, 250,000 and 500,000 students would yield figures of \$23,700,000, \$59,250,000 and \$118,500,000 respectively.

## **F. Sustainability**

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The goals, strategies, and programs described herein are not dependent on continued funding from external sources, but rather are incorporated the ongoing improvement plans of JCPS. The trimester schedule, CAT advisories, and common professional development time have already been adopted not just in the targeted persistently low-performing schools, but across our comprehensive high schools. These changes are critical to a larger high-school restructuring effort that has been supported by the School Board, growing out of the recommendations of a community-wide task force. They have been given added given added power and sustainability by an unprecedented collaboration of all of the local post-secondary institutions, business leaders, community groups, civic leaders and the Mayor's Office who have all have just signed a

*Joint Commitment to Educational Attainment* to work together to increase the number of college graduates by 40,000 by 2020 in Jefferson County. We expect that this commitment will result not just in cross-institutional alignment, but in an ongoing commitment to secure the necessary resources. As had already been noted, the trimester schedule adds little cost to the district budget, while significantly expanding learning time. Therefore, we expect that with its success, it will be immune to budget pressures.

As noted in Section C, JCPS has a strong history of successful entrepreneurial fundraising. Most recently, the GE foundation contributed \$25.6 million and has committed an additional \$10 million to support mathematics and science improvement. The Jefferson County Public Education Foundation, an independent 501(c)(3), which solicits funds from local and national corporate sources, has committed to raising the matching funds for this project. In fact, the Foundation has a long history of major fundraising to support district initiatives.

For example, when the district focused its attention on increasing reading achievement the foundation raised \$8 million dollars for Every 1 Reads. When it began four years ago, there were 18,000 novice readers (Scale - Novice, Apprentice, Proficient, and Distinguished). JCPS committed to raise \$2 million per year for the next four years to be earmarked for this reading initiative. After four years and \$8 million, more than 10,000 trained volunteers have tutored and mentored students reducing the percent of struggling readers from 18% to 9% in the district.

In 2009, JCPS was awarded more than \$93 million in grants, awards and contracts from foundations, corporations, and the federal and state governments many of which included extensive partnerships and collaborations. Since 2008, the US Department of Education awarded the district the following grants: Smaller Learning Communities, Elementary and Secondary School Counseling, Women's Educational Equity Act, and Technical Assistance for Student Assignment Plans. In addition the district also received a federal Environmental Protection Agency grant and several Safe Routes to Schools grants. These were in addition to numerous other projects funded by Genentech, United Parcel Services, Humana Foundation, and JP Chase Morgan, Kentucky Department of Education (including 21<sup>st</sup> Century Community Learning

Centers and Stewart McKinney Homeless Education), and other foundations and corporations. The cornerstone of all these projects is partnerships and collaborations, which are key to sustainability.

JCPS has a long history of supporting successful projects once external funding ends. With two district Cabinet members leading the project, a leadership team at each school in place, and regular structures in place to communicate and share effective practice across all high-school principals, district-wide resource teachers and curriculum directors, we are well positioned to not only sustain and improve results in targeted schools, but to disseminate lessons learned across all JCPS high-schools and across Kentucky.

## **G. Management Plan and Personnel**

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Arthur Camins will serve as the project director, and will be responsible for ensuring the success of the overall project. Mr. Camins will work closely with Joe Burks and Brian Shumate to jointly oversee the direction of the project. Jointly they will oversee the technical consultants and evaluators. Mr. Camins will spend .25FTE on the project and Mr. Burks and Dr. Shumate will spend .30 FTE on the project. Mr. Burks and Dr. Shumate will oversee school based teams made up of the principal, the CAT Coordinator, Master Scheduler, Counselor, and possibly others as needed at a particular school. School teams will schedule and make use of resource teachers as called for in the proposal. The school teams will also ensure the common planning time and PD sessions called for in this paper are carried out. They will meet at least quarterly to share information and ensure that school level aspects of this plan are carried out.

Mr. Burks and Dr. Shumate have developed and implemented aspects of the project in other schools, and will ensure that school faculty and resource teachers roll out this project as described previously in this application. They will be responsible for meeting with principals and school teams as necessary on a regular basis to gather information about what is working and what is not and disseminating across the target schools. Mr. Burks is currently in charge of a

project to realign every high school and plans to implement district wide reforms at 11 other schools not targeted in this grant. He believes his role is to clarify the district’s vision, create conditions for local school capacity and district coherence, and mobilize all stakeholders to continuously redesign schools that focus on the classroom and move every student to proficient performance.

Dr. Carol Nixon and Edvantia will develop or adopt research tools and methods, and deliver proximate and final findings, and write interim and final reports. Edvantia will share interim findings with the District Team representatives, who will in turn work with principals and school teams to ensure that data and information is shared across the project schools. Dr. Diana Oxley and Education Northwest will provide technical support for professional development, and will work with Edvantia, Mr. Burks, Mr. Camins and Dr. Shumate to develop a detailed descriptive guide to effective use of increased learning time that will be published to share with other districts and researchers.

*Timeline w/milestones for accomplishing tasks*

Action	By When	Responsible
Create a district-level and school-level teams to support and guide development work; teams include practitioners and collaborating partner staff	August 2010	J. Burks A. Camins
District team creates <i>Making Time for What Matters Most</i> tools and materials to guide school leaders’ development of their class schedules	August 2010	J. Burks A. Camins
Principal appoints Master Scheduler, District Team Arranges Training “Boot Camp”	August 2010	Principals
District Team creates Curriculum Development Team for Immersion Development	August 2010	Principals
School level teams develop proposed plans for	August 2010	J. Burks

adapting/adopting their schedule including timeline for implementing their plan, solicit collegial review, revision		Principals
District Team Secures Evaluator	August 2010	A. Camins
Summer Content Knowledge for Teaching Institute	August 2010, annually	Principals school teams
Principals hire CAT Coordinator, Schedule and hold PD for CAT room leaders around 21 <sup>st</sup> Century Skills- with Northwest	August 2010	Principals School teams
Schools implement adapted or newly adopted schedule	August 2010	J. Burks B. Shumate
District Team Plans and Holds Summer Institutes for Core Pedagogy	September 2010	B. Shumate Principals
District Team secures technical assistance for Common Planning	September 2010	J. Burks
Hold After School Content Knowledge for Teaching 4 times annually	September 2010 ongoing	Principals
Evaluator engages stakeholders in the design and finalization of evaluation protocols; Submit IRB application	September 2010	Edvantia
New Teacher Critical Observation sessions – 15 half-days annually	September 2010 ongoing	Principals
Common Planning across Fields of Study or Freshman Academy, incorporation of interim student achievement pedagogy data	September 2010 ongoing	Principals School Teams
Common Planning by subject area, incorporation of	September 2010	Principals

interim student achievement pedagogy data	ongoing	School Teams
Development of Making Time for What Works Process prototype	September 2010 ongoing	A. Camins Edvantia
Data collection begins including school climate survey, SNA, first trimester outcomes	October 2010 Ongoing	A. Camins Edvantia M. Munoz
School teams collect data on implementation of the plan and submit data to district team (1 <sup>st</sup> trimester)	November 2010	Edvantia J. Burks
District team reviews data and provides feedback for mid-course corrections that could be made	November 2010 ongoing	A. Camins J. Burks
Reporting and quality improvement mechanisms established and underway	November 2010/Ongoing	Edvantia
Prototype seminar for other interested districts	September 2013 ongoing	B. Shumate
Presentations of Process prototype at conferences	November 2013	J. Burks A. Camins Edu. Northwest

*Project Director and key personnel with qualifications*

Arthur Camins will serve as the MT Project Director. He is the Executive Director of the Gheens Institute for Innovation, an internal research and development arm of JCPS. As a key member of the Superintendent’s Cabinet he participates in all district policy decisions. He has led numerous large NSF projects over the last sixteen years. In Hudson, Massachusetts he was the PI for two successful NSF grants, Formative Assessment in Science Through Technology (FAST, REC: 0207961) and a Local Systemic Change Project, Critical MASS (ESI-9911778). He was also PI of Science in the Seamless Day, DRL-9253279) from 1992-1998, a Teacher Enhancement collaboration among two urban minority Brooklyn school districts and Brooklyn

College to introduce inquiry-based instructional strategies, exemplary science curriculum, and interdisciplinary methods to 700 elementary teachers. From 1994-97, he served as the Associate Director of the New York City Urban Systemic ESR-9453663. In that capacity he designed a city-wide strategy to engage each of the city's 32 school districts in designing and implementing change strategies for science and mathematics built around curriculum, professional development, assessment, administrative and policy support, and community alliances.

Joseph Burks has acted as Assistant Superintendent for JCPS for ten years and oversees 28 principals. Previously he was a successful high school principal in what is arguably the best in the district. In that role he was awarded Kentucky Department of Education State Principal of the Year, and the school became a National School of Excellence: Blue Ribbon School. Previously, he has served as both an assistant principal and teacher.

Mr. Burks is currently in charge of a project to realign every high school and plans to implement district wide reforms at 11 other schools not targeted in this grant. He believes his role is to clarify the district's vision, create conditions for local school capacity and district coherence, and mobilize all stakeholders to continuously redesign schools that focus on the classroom and move every student to proficient performance.

Dr. Shumate currently serves as High School Liaison. He previously has positions in schools as teacher, Assistant Principal and Principal and has worked in the district for 16 years. He currently serves as the President of the Jefferson County Association of School Administrators, is a Board Member of the Kentucky State Council of Southern Association of Colleges and Schools (SACS), and has served on many other boards, including Public Radio Partnership and the Iroquois Business Association. He has worked extensively on the new School to Career themed High School Initiative, and while principal at Iroquois, Increased Iroquois High School's past three biennium test scores on the Kentucky State 'Commonwealth Accountability Testing System (CATS)'. Iroquois has moved from a school in 'Assistance' to a 'Progressing' School.

Edvantia, Inc. will be responsible for conducting independent process and outcome evaluations for the project. Edvantia has a long history of supporting educational reform and improvement and brings an experienced staff and other resources to support the evaluation. Carol Nixon, Ph.D. will serve as the lead evaluator responsible for evaluation design and implementation; active collaboration with the JCPS project implementation team, internal evaluators, and school administration; analyses; and report development (refer to Appendix C for her CV). Dr. Nixon has over 18 years of evaluation experience across education and social services settings, including responsibility for projects funded by federal agencies including U.S. DOE, SAMHSA, OJJDP, CDC, and HRSA.

Dr. Diana Oxley has 20 years' experience carrying out research and collaboration with schools on reorganizing secondary schools and strengthening their instructional programs. She has recently published *Small Learning Communities: Implementing and Deepening Practice and What makes small learning communities work* which summarizes research on small learning communities and identifies effective SLC practices; and *Creating Instructional Program Coherence* which describes teachers' efforts to reinforce student learning of key knowledge and skills across the curriculum. Dr. Oxley is a program director at Education Northwest where she coordinated technical assistance for the U.S.D.E. Small Learning Community Program, including the development of tools and materials for shifting instructional time and resources to core academics. Presently, she coordinates the annual national institute on high school redesign and leads a team which provides professional development for schools' and districts' high school redesign initiatives. Chartered in the Pacific Northwest in 1966 as Northwest Regional Educational Laboratory, Education Northwest now conducts more than 200 projects annually, working with schools, districts, and communities across the country on comprehensive, evidence-based solutions to the challenges they face.

Dr. Marco Muñoz is an evaluation specialist for Jefferson County Public Schools. He will be responsible for coordinating with Edvantia (external evaluators). Dr. Muñoz has over twelve years experience and expertise in educational program and administration with specific

research interests in educational evaluation. He serves as an adjunct faculty member at the University of Louisville, where he teaches research methods, statistics, measurement, and evaluation. Dr. Muñoz received the American Evaluation Association's Marcia Guttentag Award in 2001 for his contribution in school district evaluation. He also received the National Staff Development Council's Best Evaluation Award in 2008 for his contribution in professional development evaluation. He has experience working with external evaluators on other district and federal grants. The internal and external evaluator will collaborate in all phases of the research process; the primary role of the internal evaluator will relate to providing assessment-related school indicators such as attendance, graduation rates, dropout rates, ACT-related scores, and state-wide assessment data.