STRATEGIC DATA PROJECT

SDP FELLOWSHIP CAPSTONE REPORT

Scaling Barriers to Ensure Success in Program Evaluation

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Strategic Data Project (SDP) Fellowship Capstone Reports

SDP Fellows compose capstone reports to reflect the work that they led in their education agencies during the two-year program. The reports demonstrate both the impact fellows make and the role of SDP in supporting their growth as data strategists. Additionally, they provide recommendations to their host agency and will serve as guides to other agencies, future fellows, and researchers seeking to do similar work. *The views or opinions expressed in this report are those of the authors and do not necessarily reflect the views or position of the Center for Education Policy Research at Harvard University.*

Framing the Problem

Within the context of continuously improving schools, school systems, and educational state agencies, the subject of program evaluation is not only essential, but in a growing number of places is a required component of educational practice. Even with this requirement, there are a myriad of benefits to conducting program evaluations with fidelity. Among these are that data can be used to test and refine educational processes and better reach the students involved. Also, systems can be more cohesive and coherent so as to better use, rather than monopolize, the available resources of an education entity. The key question, however, that our workgroup wrestled with was how to formulate a model for conducting effective program evaluations while each member was at a different stage in the process. In so doing, we wanted to plot a path that was not necessarily sequential, but rather that addressed research-based milestones to aim for during any program evaluation.

Overall, while the results that come from effective program evaluations can be used to help adapt, refocus, or change programs delivered to students, there are also costs involved. With this in mind, and that funds in districts and states are not limitless, we aim herein to bring enlightenment to the program evaluation process in ways that can streamline the usage of funds while also not necessarily introducing many new costs. Some program evaluations may result in recommending that an important program is overhauled, and so in the short term this means that workloads will be increased. However, the fruit of effective program evaluations over time is that an educational entity can be better focused in the delivery of education to its students.

In the following literature review and subsequent examinations of four program evaluations in three districts and one state agency, we consider at depth the benefits of conducting program evaluations in education and how to best focus our research to reach the students that are often the direct recipients of the programs being evaluated. In this context, we want to recognize that the single most fundamental reason for conducting program evaluations in education is to improve educational outcomes for students—even if this causes

some unsettling in place where people are comfortable with ineffective systems. As Winston Churchill famously said, "To improve is to change; to be perfect is to change often.[1]"

Literature Review

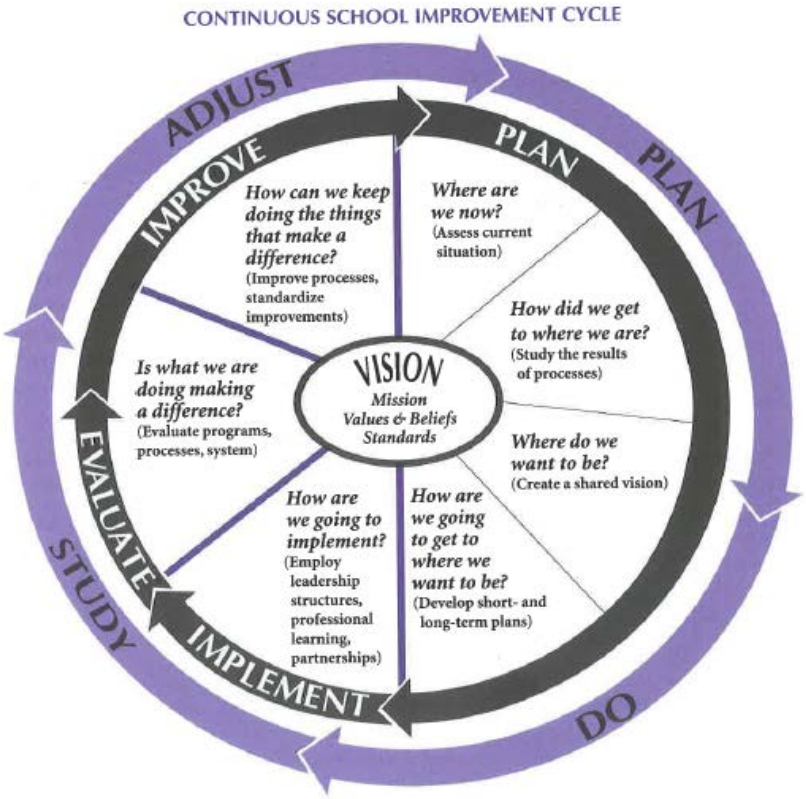
Thus, as SDP Fellows across four Eastern/Midwestern states, we set about to gain a better appreciation of national standards for program evaluation as set out by the Joint Committee on Standards for Educational Evaluation. These program evaluation standards, first crafted in the 1970s, aimed to bring consistency and utility to a field of program evaluation research. It is noted that at the time standards were created, educational research was reflected by inconsistency and differing quality with regard to results.[2] One overarching goal from the comprehensive standards statements was to provide a sense of common ground for educational researchers and in turn for their findings. This insight resonated with each of the SDP Fellows as they embarked separately on projects which ultimately were leading towards the same goal: improving the outcomes of students. The four projects dealt with:

- Understanding early literacy summer programs,
- Return on investment analyses of human capital in education,
- Focus groups in analyzing program effectiveness across schools, and
- Learning efficacy of grant-recipient schools in making sustainable school improvement.

To start with, however, it is important to consider the basic elements of the improvement cycle in education as described by Bernhardt (2004)[3] and depicted in Figure 1. This in turn will show how to engage a program evaluation that will be able to support a school's improvement. Each of these steps will lead towards academic improvement, which necessarily is measured by improvements in achievements and by supporting adult refinements as well.

[1] Churchill, W. (1925, June 23). House of Commons. Retrieved from: https://www.winstonchurchill.org.
[2] Degracie, J. & Merrill, B. (1994). Implications of using the revised program evaluation standards in local education agencies. *Journal of Experimental Education, 63(1).*
[3] Bernhardt, V. (2004). Data analysis for continuous school improvement. NY: Routledge.

Figure 1. Graphical Depiction of Continuous Improvement Cycle (Bernhardt, 2004)



Program Evaluations that support continuous improvement

For each of us, coming from different perspectives within our own educational agencies, the aims of our respective agencies and the place we are within a team working in program evaluation may differ in either the locus of effort or attainment of results. Still, however, in our collective work in program evaluation, we share the goal of continuous school improvement. In this recursive cycle, a researcher can adopt the previously set Program Evaluation Standards as their vision, while also maintaining any agency-specific values or beliefs that can add further clarity to the research project.

Within this context, the first step is to *plan the program evaluation*. Planning involves identifying the problem and potential reasons for this problem. By accurately understanding and defining an educational problem, the process is set in place to develop a robust program evaluation which in turn will lead to solutions. The planning process also involves developing

rationale and concrete methodology for getting to a better place, the envisioned place that fully aligns with the agency's vision and mission regarding the research project.

The next step is to *implement* the program evaluation. This step in the cycle begins with thoroughly applying each statement from the five standards listed in the Program Evaluation Standards. This thorough investigation will provide better clarity of the researched problem while also testing the various means by which you can better understand the problem at hand. As each of the five standards is better clarified and the problem understood, evaluation can occur that will lead towards either adapting the program at hand or realizing that larger change is needed to make the program more useful. In some cases, the problems and responses required may not be as clearly defined, and so the researcher needs to determine the most equitable path forward for the agency in relation to the research project.

As a result, the researcher is then able to *evaluate* the program initially being studied. As SDP Fellows, this step involved a two-year process in order to reach the completion point of evaluating our respective research projects. Other program evaluations may take less time while still others may involve far more time. As such, it is important for the research to set clear expectations about which outcomes can be expected after certain periods of time (i.e., short- or long-term outcomes) and then to provide the right level of organizational momentum to ensure that externally imposed evaluation timelines do not interfere with the desired outcomes we are trying to achieve.

With this in mind, it is the evaluation phase where the individual purpose of the project can be realized and then best practices can be discerned as an effective agency response. Once the evaluation process is completed, sustainable *improvement* in student achievement can be realized, by implementing these best practices. With that in mind, the overall goal of program evaluation is to foster continuous school improvement and identifiable improvements in student achievement.

Continually, the work of an effective program evaluation should be purposefully understood within the context of the previous three steps—planning, implementing, and evaluating a program evaluation. An example of a program evaluation of a relatively shorter term was Auburn University's analysis of their need to improve their masters-level K–12

education leadership program (Ross, 2010).[4] A key benefit of their research was to breakdown some of the implementation steps to include context evaluation (fully understanding the interrelationships of many key stakeholders) and process evaluation (analyzing the potential organizational steps for change to insure they will not impede the improvement process). A lengthier program evaluation is the work of Allen, Ammon, Breshears, Drace, Husemen, Jensen, and Orcutt (2014).[5] They analyze the potential benefits and costs of higher education's responsibility to teach about the Common Core State Standards in Missouri. While their research is still in process, and many other states are weighing on similar programs, the potential long-term benefits of a robust, clear and replicable program evaluation are clear and such research is able to assist research in other states.

Using a Framework of Broadly Accepted Program Evaluation Standards

Overall, while the steps and mechanics inherent to conducting a robust and effective program evaluation can be straightforward, there are often barriers to reaching the goal of continuous improvement. Awareness of common challenges in program evaluation, and having strategies to meet these challenges head-on, will create a more effective program evaluation, streamline the use of resources in evaluation, and aid in stakeholder engagement through all steps of the evaluative process.

As experienced data analysts, we generally consider our most pressing concerns to revolve around sampling, data collection and integrity. Professional judgment, available resources and available partnerships all influence the types and quality of data that can be used for the evaluation (Bernhardt 2004)[6]. Oftentimes, evaluations are assigned on an ad-hoc basis, and the advanced planning that is required to secure these data sources and partnerships is not feasible. Thus, adherence to the Program Evaluation Standards (notably the feasibility and

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[4] Ross, M. (2010). Designing and using program evaluation as a tool for reform. *Journal of Research on Leadership Education, 5(12.7).*

[5] Allen, T., Ammon, S., Breshears, A., Drace, B., Husemen, J., Jensen, D., & Orcutt, V. (2014). Common Core State Standards (CCSS) – Higher education's role in developing education professionals: An evaluation of the network for instructional support and enhancement (NISE) program at the University of Central Missouri. Retrieved from: http://educationalrenaissance.org/index.php/edren/article/download/70/pdf

[5] Fitzpatrick, J., Sanders, J. Worthen, B. (2011), Program Evaluation: Alternative Approaches and Practical Guidelines, 4th Ed, Pearson.

[6] Ibid., Bernhardt, V. (2004).

evaluation accountability standards) can alleviate most of these concerns. This provides industry-best standards that help ensure quality, and ultimately the creation of defendable output.

Before each of us goes deeper in explaining the projects that we have engaged in, it is important to focus on the program evaluation standards and discuss some critical connections made by them. The standards statements are listed in Appendix A as organized under five domains.

Of the eight utility standards, there is an emphasis on connections that a researcher will make with the researched field, with stakeholders, with equitable processes, and with the results being used in ways that are beneficial. In total, these first eight standards harken to the origins of research and the Hippocratic Oath to 'do no harm.'

Regarding the four feasibility standards, the common theme is of efficiency for the researcher and ways that the overall project can be managed that ultimately maximize the potential results. Increasing the potential productivity of the researcher is vital given that resources are sometimes depleted in education and research projects may soar in number.

The seven propriety standards stress the need for responsibility on the part of the researcher, not only in equitable results to stakeholders, but also clarity in findings and fairness applied to those being researched. While an investigator may lean towards seeing this domain of standards as similar to the previous ones, the challenge that remains is to apply these insights and ensure that the educational entity is in full agreement with the research and potential results.

The eight accuracy standards hold the keys to the research project's overall validity of context and reliability of quality in its findings. Attaining this high level of precision requires comprehensive work before the project in planning and design as well as legitimate connections to other research during the process of interpreting findings.

Finally, included in the three evaluation accountability standards is the sobering message that program evaluation research is not intended to be conducted or stored in a vacuum, but rather that the exhaustive processes contained within them are well-documented and replicable as a result. This reminds us that the burden is on the researcher to not only avoid making lengthy descriptive summations of the research project, but to also be of further benefit

to future researchers by making the research processes clear and, in turn, reusable for additional projects.

Overall, it is the program evaluation standards that became the ties that bind us as separate SDP Fellows. Using these standards and our individual agency experiences, we believe our research has the potential to benefit all other practitioners in our respective fields.

Furthermore, a flexible and evolving methodology that uses practical guidelines (as highlighted in Fitzpatrick et al.[7]) can ensure that future program evaluators arrive at sound conclusions even in a volatile evaluative environment.

The challenges we face as evaluators are not limited to empirical data. Each member of this team, to varying degrees, is also involved with the management and oversight of the evaluative efforts of others. That said, the current gold standard for program evaluation is generally considered to be mixed method analyses of random clinical trials. Conducting such studies demands serious time and personnel commitments which may be impossible to realize with today's staffing formulas. Randomized clinical trials may also be undesirable because they can become a linchpin for political wrangling, create their own ethical dilemmas, and exacerbate existing divides within the programs under study (Goldstein Michael, 2012). Skillful evaluators will select the proper evaluation model for different circumstances (Caracelli & Greene 1993 and 1997[7], Fitpatrick et al.[8]) while being cognizant of the costs involved. A list of relevant models can be found in the table below (as adapted from Fitzpatrick et al., 2011).

[7] Caracelli, V., Greene, J. (1993), Data Analysis Strategies for Mixed Method Evaluation Designs, Educational Evaluation and Policy Analysis 15 (2); and Caracelli V., Greene, J. (1997), Crafting Mixed-Methods Evaluation Designs, New Directions for Evaluation, 74.
[8] Ibid., Fitzpatrick, et al (2011).

Table 1. Types of Evaluation Models

Model	***Focus***
Expertise-Oriented	Providing professional judgments of quality
Consumer-Oriented	Judging quality of products to aid purchases
Program-Oriented	Determining the extent to which program objectives or key elements in program theory are achieved
Decision-Oriented	Provide useful information to aid in making decisions
Participant-Oriented	Involving stakeholders to understand the complexity of programmatic activity and empower the under-represented

As each of the five program evaluators in this report considered the five compelling models listed in the previous table, we found that we borrowed important aspects from each model. Thus, while we initially wanted to define a clear recipe for the program evaluation process, this set of guides acted more as parameters within which to effectively conduct our evaluations. The importance of this is that each program evaluator who follows one or more of these models may find themselves using similar components and strategies in their work and yet still be functioning at a different stage of completion.

Who are the stakeholders affected by the evaluation? What evidence will be most compelling to the stakeholders involved in the analysis? What makes evidence compelling to these stakeholders? What design methods are most feasible? What resources are available to collect data? Answers to these questions will help determine the most effective type of evaluation to conduct while also helping to do so in the most cost effective manner. It will also help meet the requirements of any program evaluation, namely, quality, defendable and actionable results stemming from responsible study of the issue.

The effects of a robust, effective program evaluation should not be underestimated. Program evaluation can have a lasting effect on policy, with each policy having supporters and detractors—classic examples include studies of Maimonides Rule and the Tennessee STAR project regarding class sizes, orvarious studies regarding such diverse issues as school-vouchers

and need-based scholarship (Murnane & Willett, 2010[9]). Judgments expressed through program evaluation can lead to shifts in allocated resources and perceived power. Each shift will come with its own political implication and it is the responsibility of the evaluator to be aware of the political landscape in which their judgments are made.

As researchers have identified, failure to acknowledge the political context in which an evaluation will be conducted is detrimental to adoption of the evaluation conclusions (Datta 1999). As such, a quality evaluation will address the values of all stakeholders involved, yet ultimately make a judgment that considers the public good. This approach is also espoused by the Joint Committee on Standards for Educational Evaluation through the contextual validity standard. The recommendations of Eleanor Chelimsky provide the backbone for reducing the impact of political strife through a program analysis, and Fitzpatrick et al. (2011) build upon these recommendations within the context the program evaluation standards (notably the utility standards).

Operating efficiently within the political climate may still pose problems without an ethical approach to evaluation. It is imperative for evaluators to function within the bounds of clear ethical standards to foster acceptance of their ultimate judgments. Common ethical dilemmas revolve around pre-evaluative biases, data integrity and confidentiality, stakeholder pressure, and misuse of results (Shaw, Greene & Mark, 2006). The potential for misuse of evaluation results within the context of the continuous improvement model in diagram 1 should not be underestimated. With increased accountability, “the evaluator can become the ‘hired gun’ of the manager and the program establishment” (Fitzpatrick et al). In essence, some program managers blame the evaluator when unpopular decisions are made following the dissemination of a program evaluation. Additionally, program administrators may feel pressure to demonstrate program success and request judgments that are not supported by the data or cite outcomes that are not tied to the theory of action of the program being evaluated. For these reasons, adherence to the Program Evaluation standards is vital to ensure the goals of the program evaluation are still met. Specifically, the propriety and accuracy standards from the

[9] Murnane, R. & Willett, J. (2010). Methods matter: Improving causal inference in educational and social science research, Oxford University Press, 2010. London: Oxford University Press.

Joint Committee on Standards for Educational Evaluation provide a framework for conducting evaluations within the bounds of clear ethical behavior.

Reaching intended and emergent goals

All of the agencies involved in this capstone project have their own goals and objectives related to program evaluations. In some cases, there are distinct areas of overlapping need regarding program evaluation. Participating agencies are seeking to strengthen their own work by applying best practices and fostering deeper understanding of the program evaluation standards while exploring new ways to to implement those standards in their day-to-day work. However, the application of these standards will vary greatly depending on the specific needs of each agency. In what follows, each agency introduces the specific project that they undertook during the Strategic Data Project Fellowship.

Fayette County Public Schools

In the summer of 2013, Fayette County Public Schools (FCPS) became involved with the District Management Council in the Spending Money Smartly Initiative. Early on in this process, it was evident that the data in FCPS was very isolated, and the capacity to utilize this data was widespread and fragmented throughout the district. One of the essential goals of this project was to become strategic with our resources and the way we allocate those resources. Strategic resource allocation means funding what works, abandoning what doesn't, and prioritizing cost effective strategies. While few districts knowingly spend on ineffective or costly efforts, they often unwittingly do. Three key steps to become more efficient and effective in allocating resources are to:

- Develop in-house capability to perform program evaluations,
- Measure and monitor academic return on investment (A-ROI), and
- Weave program evaluation and A-ROI into the day-to-day fabric of how we operate.

Developing in-house capability to measure and monitor A-ROI includes identifying staff with the needed talent and skills, creating data collection systems, using multiple sources of achievement data (annual state and district administered interim assessments), and ensuring the availability of comprehensive cost data accumulated by program, not just line items, cutting

across all funding sources. FCPS already has much of the needed student achievement and cost data, although it has not been used for this purpose.

As the Data Team is developed, the need for a formalized program evaluation and A-ROI framework is critical to guide the work.

Knox County Schools

The Office of Accountability in Knox County has historically provided single, one-off analyses as specific questions arose regarding programs and initiatives (and sometimes years after kickoff of the initiative). Starting in 2012, the Office of Accountability began to partner with other intra-district stakeholders to study the effectiveness of high dollar district expenditures. KCS continued to build upon that foundation in 2014, releasing its Return on Investment report which, for the first time, directly tied program evaluation to the KCS strategic plan.

As the breadth and depth of KCS program analysis has evolved, it has become apparent that its historically reactive posture to program evaluation is no longer practical. A demand has arisen for a formalized framework to guide the current analytic work of the Office of Accountability. KCS's interest in this capstone project lies in providing a robust, rigorous, and thoughtful evaluative process to better weld our previously fragmented studies into a unified work. Our ultimate objective is to create a consistent framework (which will encompass the entire life of a project) by which all strategic, high profile initiatives will be evaluated.

Minneapolis Public Schools

The Minneapolis Public School system elected to send the Director of Research and Evaluation to participate in the Strategic Data Fellow Project in order to connect with innovative researchers from across the country and improve the quality of work of the Research, Evaluation and Assessment department. The department director has been charged by district leadership to transform the department through aligning department work with the district need of accelerating academic achievement of underperforming students. Specifically, the superintendent has tasked the department director with redirecting department workflow from 70% assessment to 70% program evaluation and data use. Currently all program evaluation work has been aligned with high priority district initiatives. Department staff has

doubled since the last academic year. As demand for evaluation/data use has increased, emerging challenges have become evident including how to meet the immediate needs of schools and departments while also building a sustainable infrastructure that allows for meaningful, rigorous, and ethical program evaluation and data use. The development of coherent program evaluation and data use policies, guidelines, and tools have become imperative.

Recent projects include program evaluations like a formative and summative effectiveness study of focused instruction (a district process for teaching and learning), short-term strategies (a study of the impact of autonomy through short term interventions across 13 schools), evaluating effectiveness of district magnet schools, development of longitudinal data systems identifying supports and risk factor for African American students, and redesigning existing data systems (dashboards that include longitudinal and daily academic and human capital data) to empower district staff and teachers by making data more available, responsive, and relevant to daily classroom practice.

Evidence of change include stronger collaborations across teaching and learning, human capital, instructional technology and finance departments, the development of data dashboards, the incorporation of non-cognitive measures into the district strategic plan, and the inclusion of community, partner, and municipality student data (over 300 partners) into district decision making processes. The Director has also been recently added to the superintendent's cabinet.

Michigan Department of Education/Michigan Department of Technology, Management and Budget

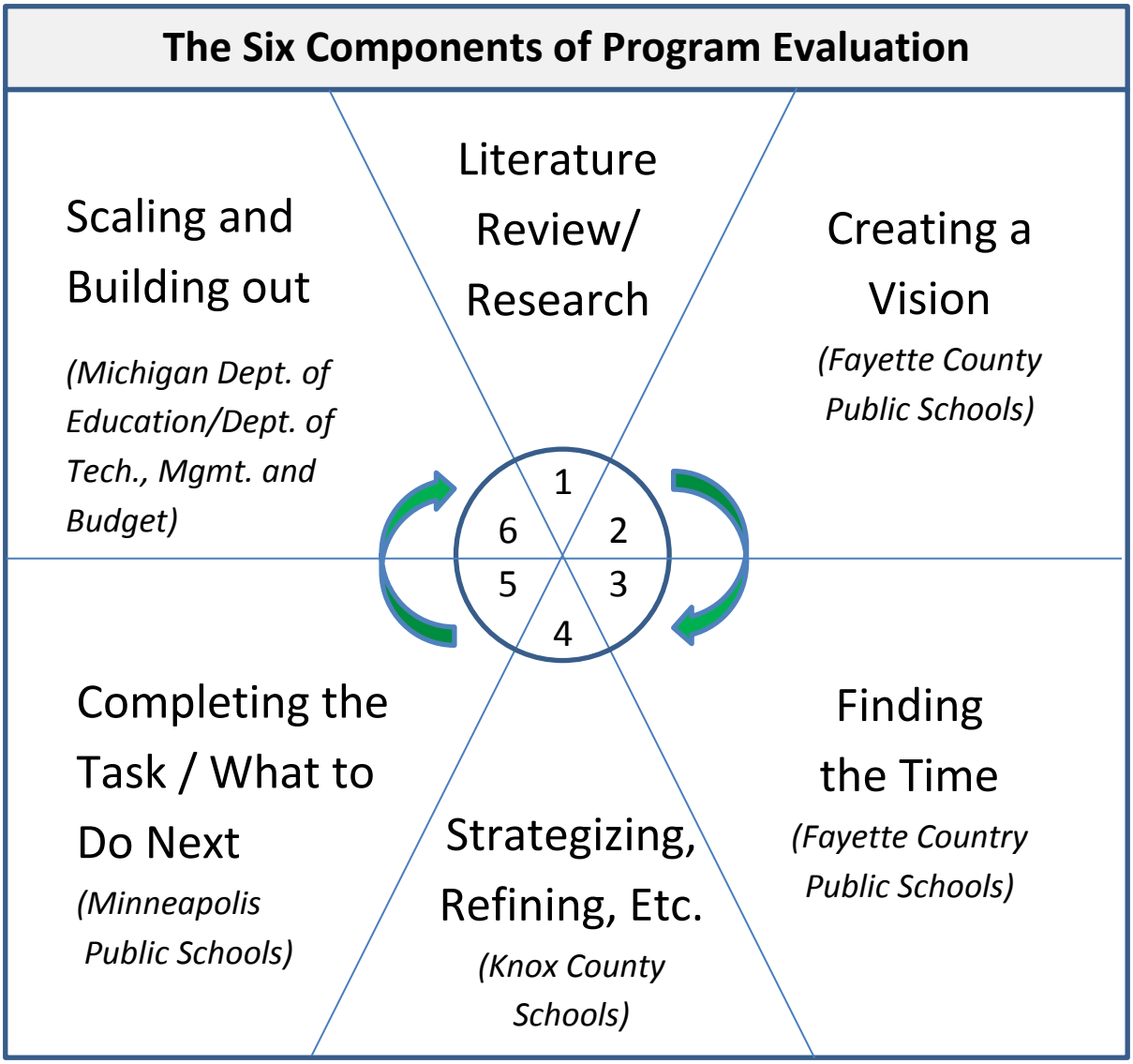
While the Michigan Department of Education/Michigan Department of Technology, Management and Budget has three SDP Fellows, only one researcher has chosen to conduct a program evaluation. That said, that fellow conducted a two-year study of the efficacy of School Improvement Grants (SIG) awarded to 28 low-performing Priority Schools in 2010. These schools each received nearly $2 million dollars per year for each of the three years. Some schools made significant improvements while others made less dramatic gains or even remained stagnant.

With that in mind, the program evaluation of the efficacy of the SIG Grantee schools includes four components:

- Measuring schools annually using the state's Top-to-Bottom List,
- Evaluating a Survey of Sustainability completed by each of the SIG Grantee schools that remained open through the two-year research period,
- Performing a site visit at each school and comparing/contrasting findings from that visit with all other artifacts of the school's improvement process, and
- Creating data analytics that could help schools deepen their improvements.

By understanding the work of each agency, an overall view of program evaluation can be gained, as depicted in Figure 2. As stated initially in this paper, the program evaluation process is not sequential, but rather, it is a cycle that can have more and more benefits as it is repeated and deepened.

Figure 2. Components of Program Evaluation



As depicted in the figure, there are six components of program evaluation. Also, as was inferred at the beginning of this report, these components should not be thought of as sequential, but instead that an effective program evaluation will infuse each of the components at opportune times. Sometimes, these components need to be returned to later on, as well, such as *finding the time*, which has prominence at many points in the busy lives of schools.

Overall, these components are depicted here as reflecting benchmarks that an agency should reach at some point or points during a program evaluation. *Like slices of pizza, it is not important to eat them in a specific order but rather to reflect on the whole pie.* With that said, the work of each of the five fellows will be described in more detail in the following section.

Case Studies by Individual Agencies

Fayette County Public Schools

Fayette County Public Schools (FCPS) is located in central Kentucky and serves more than 40,000 students from the Lexington metro area. FCPS has 66 schools and programs across the district that each focus on doing what is best for all students. Our mission is to create a collaborative community that ensures all students achieve at high levels and graduate prepared to excel in a global society. We have dedicated employees who share the common goal of providing a world-class education to each and every student in the district. We also have amazing support from our families, business community and civic leaders, who are all intent on creating a positive environment for students to learn and succeed. This support is evidenced by the state and national accolades that our students and staff members receive in academic, athletic and professional arenas every year.

FCPS had two fellows participate in the Strategic Data Project with a focus in the area of Program Evaluation—Robert Sayre and Daphne Jenkins.

Robert Sayre has worked for Fayette County Public Schools for 17 years as a teacher, coach, Dean of Students, associate principal, and district administrator. Robert was asked to leave his assignment as an associate principal at one of the district high schools to manage the districts involvement in the Spending Money Smartly Initiative with the Gates Foundation, and to become one of the SDP Fellows for the district. During this process, Robert has been named the Interim Director of Data Management, Planning, and Program Evaluation to begin developing a department of Data Management, Planning, and Program Evaluation where he develops systems and structures for evaluating program effectiveness within the district. This area will be essential to guide the Superintendent and Board of Education with resource allocation, using data as a common guiding factor.

Due to a district transition, Daphne Jenkins joined SDP during the second year of the fellowship. Daphne has worked for FCPS for over 16 years, and her background is focused more towards the technology processes of the district and working with student-level data. Daphne works on importing, extracting, updating, cleaning, and compiling data. She also works to create various custom reports which help schools track, monitor, and evaluate student-level

data. When FCPS began the discussions of a program evaluation department, it was determined that she should be moved into that department.

When FCPS joined the Strategic Data Project, there was a recognized need to be able to evaluate programs throughout the district. As such, Robert and Daphne began working with a capstone group whose focus was program evaluation. During the two-year fellowship, FCPS experienced many administrative transitions that prevented official development of a program evaluation department. However, through SDP, Robert and Daphne have been able to narrow their focus to two areas of program evaluation development that have been critical to their work at FCPS: *creating a vision* and *finding the time*.

Along with identifying two focus areas deemed essential in the process of both developing a program evaluation department and actually conducting program evaluations, FCPS modified their research question so that it would be more specific for the agency's current needs. Throughout the process of creating a vision, both for the department and for the need to evaluate programs, it was essential that the time spent doing so would be used in the most effective manner. Thus the research question of the agency became: what types of programs will be evaluated and what are the filters that will be applied to future programs for consideration?

Administration in the agency has still not stabilized, but discussions regarding the need for program evaluations are ongoing. As the agency continues to create a vision for the department and stresses the need to find time for evaluations, the specific research question will help provide a focus as program evaluations get started. Also, a rubric was developed during the fellowship that centered on the research question and is intended to help the agency prioritize and focus on programs that will provide the greatest return on investment for students and the district.

Creating a Vision: In 2013, Fayette County Public Schools became involved in the Spending Money Smartly Initiative in partnership with the Gates Foundation. This initiative was sought after to align FCPS's processes and practices to become more efficient and effective with the allocation of resources. During this initiative and while working with the District Management Council from Boston, it became very clear that FCPS did not have any formal way to manage or evaluate new or current programs. Because of the previous, relative stability of

funds and student achievement, FCPS had become complacent and continued to layer supports and programming without any true evaluative process. This all changed when a significant budget deficit was announced during the 2013–14 budget cycle. Fayette County's collaboration with the Strategic Data Project also helped solidify the need for the utilization of data to make decisions about which programs were/are being effective for the group of students they serve. This led to the initial development of an FCPS data team. A first iteration of individuals from the Grants Department and the Assessment Department were placed together to begin developing systems and structures for aligning data and evaluating programs.

After months of intense meetings and conversations with the interim superintendent, Board of Education, executive cabinet, and community stakeholders, explaining how program evaluation and aligning the data systems in FCPS will allow the district to reallocate resources to support the programs and services that produce the best outcomes for students, the Board approved the position of Director of Data Management, Planning, and Program Evaluation.

The initial work of the Data Management, Planning, and Program Evaluation Department (DMPP) will be to align the district data systems and begin engaging our stakeholders. Engaging key stakeholders when implementing a new strategy is critical to its success, particularly when it is a strategy to evaluate the effectiveness of initiatives. Communicating with stakeholders and inviting key constituents to participate in the process, beginning with selecting which program to analyze, can help ensure buy-in in the later steps. Starting the program evaluation process by communicating effectively and engaging stakeholders will allow for a smooth transition to a new approach of evaluating the effectiveness of programs.

Step 1—Our plan is to begin educating key stakeholders about program evaluation before taking the first steps towards program analysis. Prior to identifying programs for analysis, the DMPP will engage in a campaign to introduce key players to the concept of program evaluation. In FCPS the idea of formalized program evaluation is unfamiliar and may elicit negative responses. It is critical for key stakeholders to understand how program evaluation will be used to boost student achievement. All of the key stakeholders who may be impacted by the outcomes of program evaluation or who will be asked to make decisions based

on this work will receive an overview or training. The education of these groups early in the process will make the decision-making later on much easier.

Step 2—Program evaluation in FCPS will be used as a tool to increase the quality and effectiveness of services to students, and it is important to make this distinction and explain it in this way. By bringing principals, district leaders, and board members into the conversation early, it is possible to build understanding for the value of the idea of program evaluation and data-driven decision making.

Finding the Time: The DMPP will begin its work plan by creating a thorough list of current and upcoming programs, strategies, or efforts as potential candidates for the evaluative process. FCPS does not have the resources to analyze multiple programs each year. Trying to determine the best candidates for a program evaluation analysis can be a resource-intensive and politically sensitive process if it is not organized in a thoughtful way. The DMPP will work with various departments, schools, and the new superintendent to create a list of all of the district's major initiatives, either current or upcoming. We will encourage the group to think broadly about what constitutes a program, strategy, or effort. It is also important to include things that are not typically called programs but are important elements of the district's strategy to serve students, for example:

- Preschool and kindergarten readiness
- Extended day for struggling students
- Programs funded by Title I

One strategy to ensure buy-in from stakeholders will be to make sure that the DMPP includes multiple departments and schools in the process of creating the list to ensure completeness and accuracy. Without this step, it may become difficult to generate a complete list of programs, strategies, and efforts. The DMPP will guide the process and it may be easier for principals and department heads to create a complete and accurate list if they approach the task one category at a time.

- Type of program (e.g., curriculum initiative, instructional strategy, indirect services, or non-academic programs)
- Level (e.g., elementary, middle, high)

A Program, Strategy, and Effort Organizer Tool: The tool below was developed with assistance from the District Management Council, to capture all programs, strategies and effort within the district:

Instructions—List all major programs currently in use in your school or department as well as any programs that you plan on launching in the near future. Major programs can comprise a variety of items, including, but not limited to, programs aligned with district priorities, programs funded by Title I, programs serving the district's neediest students, and programs that require significant investment of staff time or dollars.

Table 2. Program, Strategy, and Effort Organizer Tool

Curriculum Initiatives	Instructional Strategies	Support For Teachers	Non-Academic Programs
e.g., Read 180; elementary world language initiative	*e.g., additional reading block for struggling readers; class size reductions; alternative schools*	*e.g., Teacher mentorship program; focused PD initiative*	*e.g., Middle school social worker program; autism inclusion program; parent engagement initiative*

The next step is to set minimum threshold criteria for size and scope to focus the list on high-potential candidate programs. This process will work as a filter, ensuring that there will be significant value and adequate resources to perform an evaluation analysis on the program. The threshold criteria should eliminate programs that are not aligned to district strategy, are too politically sensitive, or are too small in scope.

There are a variety of reasons that a program may not be ready for a program evaluation analysis, including:

- It is not a key element of district strategy.
- The scope (number of student served) or costs are too small for any changes resulting from the analysis to be impactful.

- The program is a political hot topic. Such an effort may not be the best candidate for a program evaluation analysis if the political situation will prevent any meaningful changes.

Thoughtful program selection is one of the most important steps in the evaluation process and can be managed effectively by using a structured program selection rubric.

High-potential candidate programs can be prioritized on a more comprehensive level. This process seeks to identify which of the programs, strategies, or efforts has the greatest potential to generate results that can be acted upon and have the most significant impact on students as a result of an evaluation. The program selection process should consider scope, investment of dollars and staff time, and the political context surrounding the program. Selecting a program with a good chance of leading to results that can be acted upon and tangible change is critical to gain momentum for the concept of program evaluation in the first few analyses. Ideally, the analysis should focus on a program whose owner wants to use the report to inform future implementation.

Trying to avoid debate concerning why a specific program is targeted for program evaluation analysis is key to avoid any distraction from the ultimate goal: to increase the quality of services to students. Selecting a program that has previously been a contentious topic of discussion, whether amongst district employees or in the community at large, can create an opportunity for critics to question the transparency and objectivity of the process.

The second tool, a detailed Program Evaluation Rubric was developed (See Appendix B), with assistance from the District Management Council, to select high-potential programs, strategies, or efforts for the evaluation process.

Knox County Schools

Knox County Schools is a district of approximately 56,000 students in eastern Tennessee. Knox County's core mission is to ensure excellence for every child by ensuring access to differentiated and high quality instruction. The Office of Accountability has been tasked with determining how the efforts of Knox County Schools are impacting key indicators for this goal. Clint Sattler, a data analyst for Knox County Schools, was enrolled in the Strategic Data Project in the fall of 2013 in an effort to strengthen the district's analytic capacity.

Project History: The Office of Accountability has a long but varied history in Knox County Schools (TN). The office originally functioned to provide logistical and administrative support around district, state, and national testing. The scope of the department increased in the late 1990's to begin addressing other data needs around the district as well as processing outside research requests. With the passage of the No Child Left Behind Act (NCLB) in 2001, demand increased for predictive analytics and retrospective program analysis. The department has been able to grow its analytic capacity and demand for evaluative services starting with an influx of grant dollars in the district due to the federal Race to the Top grant. Currently, the Office of Accountability includes four analysts, a testing coordinator, and administrative staff.

Early in the Office's history, formal program evaluation was a result of grant compliance and general curiosity of those who had access to the data. Evaluations were designed long after the initial kickoff of each initiative and only if some party was interested enough in the outcome to request it. In 2011, an effort was made to begin systematic program evaluation. Budgetary concerns became the main driver for determining which projects were slated for evaluation. Priority went to high dollar programs and mid-range investments where grant funding was ending. The intention was to inform the district budgeting process as to what investments should continue with general purpose funds. The resulting report became the first Educational Return on Investment (eROI) report from the Office of Accountability.

In 2013, the eROI process was adjusted to better align with the district's five-year strategic plan, "Excellence for All Children," and in concert with work done by the Parthenon group, a consulting firm who partnered with KCS through the Bill and Melinda Gates Smarter Spending Initiative. The Parthenon Group facilitated in the planning of a large scale district initiative to provide one-to-one student-to-computer ratios in order to increase personalized learning (PLE) in KCS classrooms. The Office of Accountability mapped out the initial evaluation plan of the PLE in a collaborative process with the PLE program managers prior to program implementation. The first formative evaluation of the PLE initiative was released as part of the 2014 eROI report and is included at the end of this report (See Appendix C).

As our partnership with the Parthenon group closed, the KCS partnership with the Strategic Data Project began. This continuity has allowed for a natural evaluation of our

evaluative processes. The lessons learned from our previous work and input from SDP staff, partners, and alumni are still shaping the face of program evaluation in Knox County.

Project Scope: KCS began the implementation of its new five-year strategic plan, "Excellence for Every Child", with an emphasis on creating a culture where very child has the opportunity to reach his or her potential. The Department of Research Evaluation and Assessment (REA, a branch of the KCS Office of Accountability) has been tasked with utilizing quality program evaluation to determine which district initiatives are moving us closer to or goal of "Excellence for Every Child."

Reaching this goal will only be possible if the Office of Accountability commits itself to better align its processes and workflow with the principals of the Program Evaluation Standards, as previously described in Appendix A, and generally accepted best-practices. Doing so requires better standardization of our internal processes as well as deeper collaboration with our stakeholders. Evaluation can no longer be a backward look at superficial data associated with a program. Key questions and indicators must be identified as program managers build their initiatives from concept to execution. Knox County's collaboration with the Strategic Data Project and its associated network has played a role in facilitating our evolution towards best practices. The Office of Accountability is pushing partnering stakeholders to consider the ultimate evaluation of their program concurrent with the design of the initiatives themselves, while also standardizing our processes to ensure we are producing high-quality work.

The initial work to standardize the KCS evaluation workflow began in the fall of 2014. KCS determined the first step in adjusting our process related to defining the scope of any program evaluation through a planning form. The intention was that the evaluation planning form (See Appendix D) would serve as a collaborative tool to map out the program evaluation with the architects of the initiatives and explicitly tie the program's theory of action to measurable outcomes. Completing the form would help the evaluator understand the explicit needs of the program manager, while also helping the evaluator gain insight into the expectations of the program manager and the goals and culture of the program to be studied. The information collected in the form defines the scope of the program evaluation, applicable timelines, and the level of detail required in subsequent reporting. In addition, the key stakeholders of the program to be evaluated are identified on the planning form. Identifying

the key stakeholders from the outset allows the ultimate findings to be presented in a context that is valid and valuable to those involved.

The key information collected on the planning form helps to define the logic model of the program to be evaluated in very non-technical language. This process is important in creating explicit links between outcomes and the issues we are trying to solve. In essence, the five questions we ask, as depicted in Table 3, can help to define the reasoning behind the entire evaluative effort.

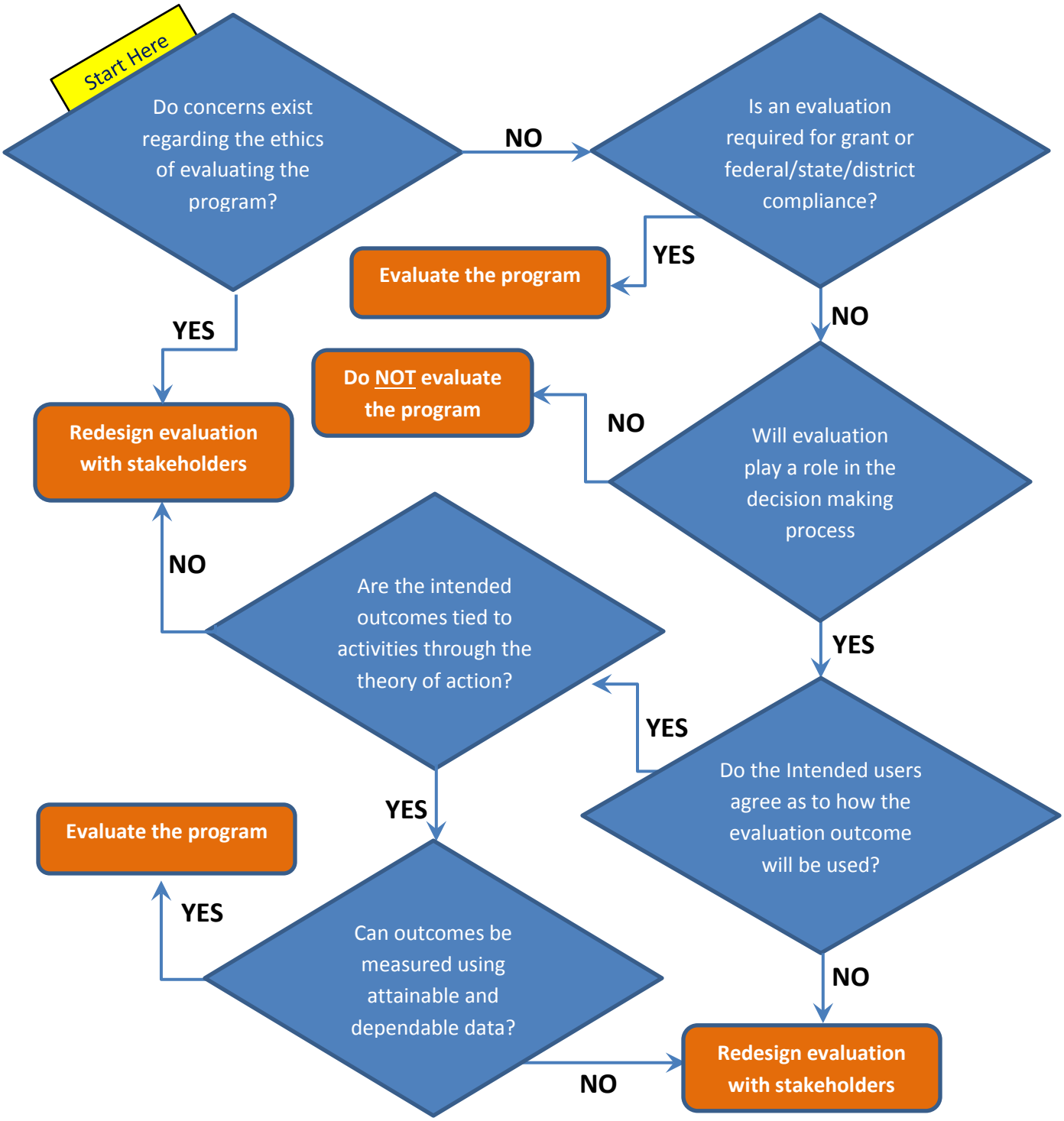
Table 3. Key Planning Questions for a Program Evaluation

What is the problem?	How do I know this is a problem?	How am I addressing the problem?	What will happen if I solve the problem?	How will I know?
What problem or issue are we attempting to address?	What indicators illustrate that this is a problem?	What are the steps being implemented in this program to address this problem?	What are the intended effects of the program on this problem?	What data are requested to measure progress?

It is important to note that the evaluation planning form does not create a binding contract between the program manager and the program evaluator. It is implicitly understood that program evaluation is fluid. However, the key information on the evaluation form must be collected again if the program goals or scope change due to stakeholder perceptions, wants or needs. This helps to ensure that the evaluator and program manager agree on the redefined scope of the project.

We are also taking steps internally to ensure that we are adhering to defendable evaluative processes. The first step in this process is determining if a program should be evaluated. This helps to ensure that departmental resources are being responsibly, effectively, and efficiently deployed. Figure 3 depicts an important first step in determining the merits of a program for future evaluation.

Figure 3. Deciding Whether or Not the Program Should be Evaluated



The final piece of information collected on the internal planning form is in regards to the quality of the data and information that is being used to judge the merit of a program. In the

past, our evaluations relied on whatever data was available, regardless of the data's reliability. Examples of low-quality data would include attendance reports using hand written names (and sometimes nicknames) to determine intervention attendance. We are now moving to a system of grading data sources. Data sources that grade out as an F will not be allowed to be used in data analysis for program evaluation, nor can the majority of data sources score below a C. Most important, we are willing to work with stakeholders to create new data sources where high quality data sources are currently lacking or nonexistent. An example of classification criteria is contained in Table 4.

Table 4. Example Data Grading Rubric

Grade	***Identifier-based example***
A	Data contains a single unique identifier (student local IDs, teacher license numbers, Active Directory IDs, etc.) and ≥ 95% of data matches attained with no manual intervention.
B	Data contains a single unique identifier (student local IDs, teacher license numbers, Active Directory IDs, etc.) and ≥ 75% of data matches attained with no manual intervention.
C	Data contains no single unique identifier. Unique identifiers are created through the combination of non-unique information and provide matches to more than 95% of the data source with no further manual intervention.
D	Data contains no single unique identifier. Unique identifiers are created through the combination of non-unique information and provide matches to more than 75% of the data source with no further manual intervention.
F	Data contains no single unique identifier. Unique identifiers are created through the combination of non-unique information and provide matches to fewer than 75% of the data source with no further manual intervention.
N/A	Data source does not exist yet.

Results, Impact, and Moving Forward: Despite the progress the Office of Accountability has made, obstacles to high quality program evaluation still exist. As a result, there are continuing struggles to effectively leverage REA resources despite the growth of the department. The REA department is sometimes tasked with evaluating low-dollar, low-impact pet projects which redirect resources away from the evaluation of higher impact and higher dollar investments. The department must be more strategic about which programs are

evaluated with the understanding that the resource commitment that is required for a deep, mixed methods analysis is considerable.

Although improvements have been made in designing program evaluation prior to program kickoff, there are still instances where REA staff is not included in the original project planning. This leads to continuing issues around low quality data, low stakeholder engagement, and generally decreases the depth of the subsequent evaluation.

Program managers sometimes want to take a kitchen-sink approach to measuring the impact of a program by including data points that are only peripherally associated with that program. This approach can weaken the program evaluation because it deemphasizes key indicators in the analysis.

Thus, recommendations that are made to strengthen the outcomes of a program, even when made in direct collaboration with the associated program manager are often not put into practice in the field. The current timeframe for completing program evaluations is incongruent with the district's strategic goals. The final drafts of the program evaluations are released concurrently with the initial drafting of the district's budget. This provides little time to fiscally react to the findings of the evaluations.

As a result of the KCS program evaluation, a number of necessary improvements have been recognized. These are situated as follows in terms of next steps for our district.

- REA is committed to creating deeper partnerships with program stakeholders. Strong and functional relationships with our stakeholders will shift the focus of our evaluative work from a backwards look at how the program impacted the district to a proactive focus on actionable recommendation to strengthen the program. We need to embrace a culture that seeks active stakeholder participation in the evaluation rather than having the whole process be controlled by the evaluator.
- REA hopes to increase its flexibility in evaluative practices. We will need to build our skills and knowledge to have the ability to move to participatory and decision oriented practices. This will allow for deeper stakeholder involvement in defining the agenda and boundaries of a program evaluation and hopefully lead to clearer links between project goals and key indicators.

- REA must increase the accessibility of our work by differentiating how our findings are conveyed. Where our department has previously only provided in-depth technical reports around program impact, we are now moving to providing easy-to-grasp reporting and graphics around key findings.
- REA is focusing on long term scheduling regarding program evaluation with the ultimate goal of planning eROI topics at least a year in advance. Our goal is to schedule in-depth program evaluation only during critical decision points in the project timeline and provide more superficial formative evaluations in the interim. This will allow us to allocate our resources in a much more efficient manner and decrease the lag between evaluation and budgeting activities.

All of the aforementioned changes will take time before they take root as the operational norms within the district. Participation in the Strategic Data Project, research of best practices, and collaboration between mentors and SDP Fellows has been instrumental in providing Knox County with a path forward to strengthen and codify the work that we continue to make a priority.

Overall, we are confident that the first steps we have taken in this process will provide a vehicle to help the district meet its larger strategic goals. Through these changes, our core mission remains the same. We hope to provide decision makers, at all levels of our district, with information to help them meet their strategic goals.

Michigan Dept. of Education/Dept. of Technology, Management and Budget

Jonathan J. Doll Ph.D., is an SDP Fellow with two Michigan Departments: the Department of Education through the Office of Education Improvement and Innovation, and the Department of Technology, Management, and Budget through the State School Reform Office. His work duties include early warning signs detection, supports for schools to help disengaged students, and an understanding of the reform process for School Improvement Grant (SIG) schools. During Dr. Doll's SDP Fellowship, he transferred to the State School Reform Office to work more closely with low-performing schools, which is a descriptor of all SIG schools. This was done to provide more supports to schools in strategic areas using data.

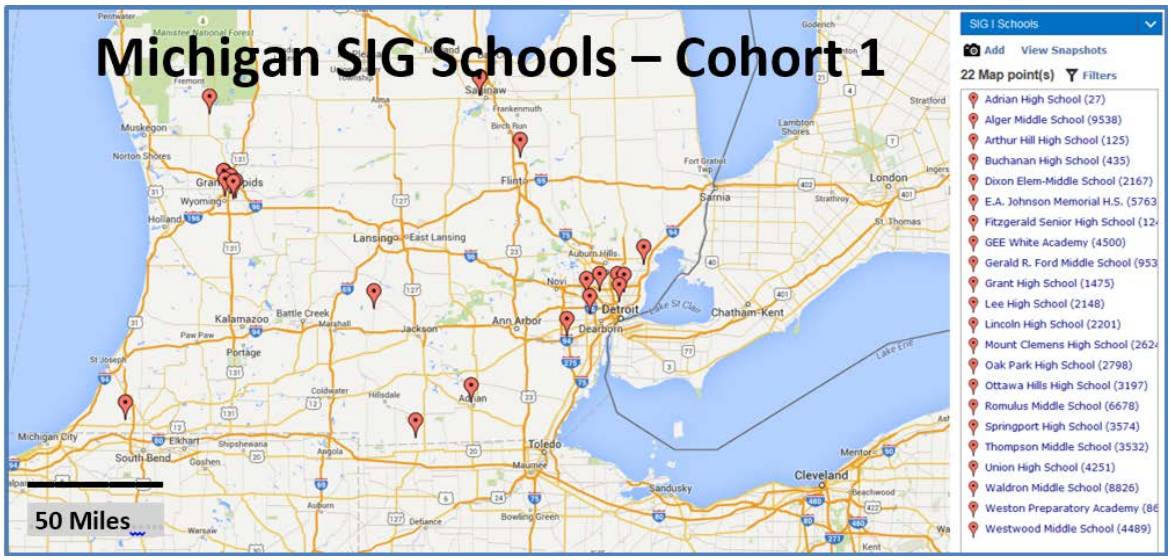
Agency Profile: Michigan Department of Education has about 400 employees at the state level. Also, the State School Reform Office, which is under the Michigan Department of Technology, Management, and Budget, has about nine employees.

The priorities of the Michigan Department of Education are broad involving school success across the state, but one priority was of crucial importance—close achievement gaps in the state. That priority became a charge for the direction of Dr. Doll's fellowship. Also, the main priority of the State School Reform Office is to help schools move from being in the state's lowest 5%to being among the state's top 25% of schools.

Research Question and Discussion: A single question resonated as Dr. Doll began his fellowship. It involved a Program Evaluation of the 22 SIG schools under research and was as follows: *If schools could deeply understand the performance of students on state tests according to gender and ethnicity, could they impact professional practice so that they work towards closing achievement gaps?* At the state level, one of the primary components of school reform is the concept of change. Also, for schools to be effective, they have to be able to manage change. In this way, with adequate guidance, reforms can be made and sustained.

Dr. Doll studied the improvements in 22 schools that received multi-million dollar grants for school improvement, as depicted in Figure 4. Overall, these schools changed in student proficiency levels by +2.9% over four years. At the same time, their end-of-grant student proficiency level was 21.0%, which was 11% above the schools that failed in their school reform efforts during the same time period.

Figure 4. Map of SIG Schools in Michigan



These SIG schools indeed made changes that could only be appreciated by interacting with them, as a group and individually. Table 5 provides a snapshot of school-level characteristics. As such, the research design used for my program evaluation included a pre-visit survey, a site visit, and then a collective analysis of all information including needs brought up by each school. In this way, the overall data gained through qualitative and quantitative means might best reflect the reforms underway.

Table 5. A Snapshot of the Twenty-Two SIG Schools

Community Type

Urban	**59%**
Suburban	**18%**
Rural	**23%**

School Type

Elementary	**23%**
Middle School	**18%**
High School	**59%**

School Demographics

Black	**47%**
White	**32%**
Hispanic	**15%**
Multiracial	**3%**
Asian	**2%**
American Indian	**0%**
Native Hawaiian	**0%**

Community Size

Urban Average Pop.	**276,045**
Suburban Average Pop.	**18,402**
Rural Average Pop.	**5,451**
Average Income/SES	**$40,842**

School/Class Size

Small 0–400	**27%**
Medium 400–900	**55%**
Large 900–2500	**18%**
Class Size	**1:18**

School

Grad Rate	**Before: 87%, After: 77%**
Dropout Rate	**Before: 12%, After: 10%**
Proficiency Rate	**Before: 18%, After: 21%**

At the beginning of Dr. Doll's fellowship, the state placed a heavy emphasis on the Top-to-Bottom (TTB) ranking system, which was initially used to identify schools as being low performing. As such, the program evaluation of the SIG schools was conducted so that schools were place in quartiles according to their 2013 TTB ranking. This was incredibly beneficial during the site visits phase so that the insights learned at each of the schools could be collected and compared to potentially similar findings at school that were close in TTB rank.

A summary of the SIG schools, separated into quartiles by the 2013 Top-to-Bottom ranking is depicted in Figure 5.

Figure 5. Quartile Summary of SIG Schools

DCode	DistrictName	BCode	BuildingName	TTB2013	TTB2014	Title I	Gradespan	Headcount	QUARTILE
41010	Grand Rapids Public School	3197	Ottawa Hills High School	1	10	Title I	9,10,11,12	607	1
82732	GEE White Academy	4500	GEE White Academy	2	3	Title I	KG,1,2,3,4,5,6,7,8	414	
41010	Grand Rapids Public School	2051	Alger Middle School	5	NULL	Title I	6,7,8	335	
41010	Grand Rapids Public School	4489	Westwood Middle School	5	5	Title I	6,7,8	403	
41010	Grand Rapids Public School	9539	Gerald R. Ford Middle School	6	NULL	Title I	6,7,8	266	
73010	Saginaw, School District of I	3532	Thompson Middle School	8	7	Title I	6,7,8	572	
41010	Grand Rapids Public School	4251	Union High School	9	10	Title I	9,10,11,12	932	2
73010	Saginaw, School District of I	125	Arthur Hill High School	11	4		9,10,11,12	1012	
82010	Detroit City School District	925	Dixon Elementary School	11	12	Title I	KG,1,2,3,4,5,6,7,8	649	
50160	Mount Clemens Communit	2624	Mount Clemens High School	11	14		9,10,11,12	389	
63250	Oak Park, School District of	2798	Oak Park High School	11	17	Title I	9,10,11,12	1508	
82130	Romulus Community Schoo	6678	Romulus Middle School	14	17	Title I	6,7,8	642	3
38150	Springport Public Schools	3574	Springport High School	16	27		9,10,11,12	314	
25040	Mt. Morris Consolidated Sc	5763	E.A. Johnson Memorial H.S.	17	14		9,10,11,12	626	
82943	Weston Preparatory Acade	8641	Weston Preparatory Academy	22	31	Title I	KG- thru 8	301	
50220	Van Dyke Public Schools	2201	Lincoln High School	23	5		9,10,11,12	806	
50090	Fitzgerald Public Schools	1242	Fitzgerald Senior High School	37	21		9,10,11,12	910	4
30080	Waldron Area Schools	8826	Waldron Middle School	44	32		6,7,8	74	
41120	Godfrey-Lee Public Schools	2148	Lee High School	56	11		9,10,11,12	415	
11310	Buchanan Community Scho	435	Buchanan High School	64	45	Title I	8,9,10,11,12	606	
46010	Adrian, School District of th	27	Adrian High School	91	83		9,10,11,12	829	
62050	Grant Public School District	1475	Grant High School	92	85		9,10,11,12	572	

Project Scope and Timeline:

Sustainability Survey: As a group, all were given a *Sustainability Survey.* This survey was meant as a preliminary guide for schools in what the Department of Education expected them to do in terms of sustaining their SIG grant after the funds ran out. It was hoped that each school would find ways to sustain the work that they had started, and only time would tell.

Overall, each school had a chance to report on their sustainability efforts during a site visit, which occurred in the spring of 2014, with analysis occurring after that in the summer of 2014.

Site Visits after Survey: One of the primary ways that change management occurs in relationships is through listening. Alson and Burnett (2003) provide a list of essential keys for active listening; each of which were used in site visits:

- Give the speaker your full attention
- Remain centered and calm
- Try to understand the speaker
- Resist mentally digressing to your own agenda
- Show concern through body language, tone of voice, facial expression
- Paraphrase the essence of what is said
- Name or identify speaker's needs and feelings as you see them
- Use questions or probes to bring out speakers views, needs, and feelings
- Listen with an open heart.

The site visits ranged in time anywhere from one to three hours. Also, two schools were observed to have achieved strong gains in climate and culture, which impacted teacher practice and trust among students and faculty, and ultimately created pride in the school buildings. These schools that improved in culture and climate were visited a second time and videotaped, as shown in Figure 6. This included interviewing each school's leadership team as well as the student leaders in each building.

Figure 6. Photo of Two Site Visits at Schools Making Highest Gains

Weston Preparatory Academy Interview
Detroit, MI

Lincoln Senior High School Interview
Warren, MI

The Achievement Gap Tool: As a result of visiting schools and seeing their transformations firsthand, an achievement gap tool was built that could better assist medium and larger sized schools to understand, according to gender and ethnicity differences, which students were performing better than others of the annual state assessment. This knowledge in turn could help schools to identify supports that they needed to build in the staff and pedagogy.

An excellent example of this tool in action occurred in a district where the superintendent observed that female students were not performing as well as males in that district's high school in the area of social studies. The superintendent was able to take this knowledge and investigate causes, and on that journey learned that all of the social studies teachers in the high school were male coaches. As a result, the superintendent was able to support professional development for these teachers so that they could be more successful in reaching female students.

This is a single example of how the tool, as depicted in Figure 7, can bring change to schools without using any heavy-handed accountability measures or punishments. There are many other examples of this type of supportive role with schools; building such a tool has been very helpful to schools.

Figure 7. Example of Achievement Gap Tool Dashboard

IN	2014 Achievement Gap Report	DEMO ANALYSIS
A14		
A13	School: J. LinkedIn Elementary School - 2014 Achievement Gap Report	August 2014 Accountability
T14	District: The LinkedIn School System	
T13	Bcode 12345	Cohort: 2013 Priority
D14		
D13	For SY 2013/2014 Number tested: 135	Reports will be saved on your Desktop in a folder titled PDF Reports and called SCHOOL NAME (#) - Gap Summary

Achievement Gap Summary

Bottom 30% Issues	Overrepresentation issues				
OVERALL STUDENTS			ED	LEP	SPED
Ethnicity	Af-Amer		Af-Amer		
Eth+Gend					
Male					
Female					
OVERALL SUBJECTS					
	MATH	READING	SCIENCE	SOC-STU	WRITING
Ethnicity	Af-Amer	Af-Amer	Af-Amer		Af-Amer
Eth+Gend					
Male			Af-Amer		White
Female	Af-Amer				

Top 30% Issues	Underrepresentation issues				
OVERALL STUDENTS			ED	LEP	SPED
Ethnicity					
Eth+Gend					
Male					
Female					
OVERALL SUBJECTS					
	MATH	READING	SCIENCE	SOC-STU	WRITING
Ethnicity		Af-Amer	Hisp		
Eth+Gend					
Male			Hisp		
Female					

LEGEND

Density of Disparities for All Ethnicities and Eth+Gender

	0-3%	4-6%	7-10%	>10%
American Indian				Amer-In
Asian				Asian
Black/Af American				Af-Amer
Hispanic				Hisp
Native Hawaiian				Hawaii
Multiracial				Multi
White				White

Tested Percentages	Overall	Top 30%	Bottom 30%
American Indian	1.5%	1.4%	1.5%
Asian	5.2%	6.8%	4.5%
Black/Af American	40.7%	32.9%	52.2%
Hispanic	22.2%	26.0%	16.4%
Native Hawaiian	0.0%	0.0%	0.0%
Multiracial	7.4%	9.6%	3.0%
White	23.0%	23.3%	22.4%

The hope for the achievement gap tool going forward in 2015–16 is to scale it to be available to more schools besides the initial 22 SIG Schools. Alternatively, the new use of online assessments in the state of Michigan may allow this type of tool to be retrofitted onto the current testing software.

With that in mind, thoughts on policy for the Achievement Gap tool are that it can be an excellent part of a toolkit for all schools that struggle with large achievement gaps. In Michigan, these schools are primarily the ones designated Focus Schools.

Discussion of Stakeholder Engagement: Engagement of stakeholders varied during the site visits to each of the SIG schools. Some visits were only with a principal. Others were with a principal and superintendent. Still others included all of the school stakeholders, the

district team, and even the local county education improvement team. Ultimately, the real test for schools in making significant turnarounds is that of sustainability. Will the said reforms be measurable years down the road or will they have only been short-term/temporary in nature? In order to help schools with making sustainable reforms, the State of Michigan reorganized its state-level reform work so that only one office under the governor will have direct authority over these schools. As state-level processes also involve many stakeholders, this transition process will take some time in order to work seamlessly and bring organized reforms to schools.

Results/Impact: Lowest performing schools (quartile 1) had more basic benefits and insights realized through SIG, as shown below in Table 6. The emphasis of these schools was on developing new skills.

Table 6. Powerful Practices—Quartile 1 Schools (TTB 1-8, 4 of 6 schools were decreasing in TTB)

Large-sized urban district	Moderate-sized urban district	Large-sized urban district	Large-sized urban district	Large-sized urban district	Large-sized urban district
Academic responses to behavior problems Regular sustained silent reading Having forgiveness as practice, policy Growth mindset, like Baruti Kafele teaches Respect, trust, two-way communication Clear expectations, active participation Having a student voice academy	Applying for other grants; 21st century Some kids lack roots; we are their anchor Topical PD for new teachers including cultural sensitivity Increasing parental engagement, pride	Binders of students, connect w 4–5 / day Lots of connection and community Interventions vs. suspensions: PBIS Develop students to seek to leave legacy A behavior cohort: making a bad class into a best class	Critical usage of targeted teacher PD Boot Camp for teachers: 185 shared prep times yearly, once daily, every day & 45 min. w/ admin No silos, but instead widely successful, highly acclaimed teacher education / student connection programming District: Weekly PD with all teachers in 2 schools District: 4 academic coaches: all schools	Improving school assessments Improving day-to-day curriculum Build capacity of leadership team	Putting $ in people; creating processes Regular sustainable PD for all staff Class sizes small for coaches' classes Lots of tech, almost 1–1 Students get daily homework Daily reading; students proud Creating parent action leaders, parents sign contract

Secondly, there were insights from highest performing schools (quartile 4), which were more highly developed insights, as shown in Table 7. As such, the emphasis of higher performing schools was on mastery of established skills and extension into new domains.

Table 7. Powerful Practices—Quartile 4 Schools (TTB 37-92, 2 of 6 were increasing in TTB)

Small-sized rural district	Small-sized rural district	Small-sized rural district	Small-sized suburban district	Moderate-sized suburban district	Moderate-sized suburban district
Community Orgs. / Parent connections Awesome monitors covering all gaps Read 180 was highly successful, loved Deeply helping homeless kids	Deep listening model for students, teachers, and even the district Credit recovery and dual credit courses District watches in, coaches not directs Citizenship – student own where they are going in life	Effective RTI system to redirect to plusses Data culture leads to high std expectation Giving kids multiple oppts for success Success breeds success, feeling safe	Improving and extending AP classes Adding Character Ed (through S^3 grant) Think outside the box Be resourceful	No silos, but instead a joined commerce No blame disease, so listening for all is big Great leadership styles & facilitators Great monitor leads to '*nothing to hide*'	Reform is organic growing up not down District embraced team-culture Developing a good sustainability plan Mentoring for staff and students

Summary of Key Successes and Challenges: The main challenge in this project was keeping a continual impact on future cohorts of SIG schools. While the work on the SIG Cohort I schools was underway, SIG Cohort II schools also entered their sustainability year. This requires continual state-level collaboration with many stakeholders, along with requisite training, in order to further sustainability aims.

Next Steps: At the current time, the Achievement Gap Tool is being prepared for use in 2015–16, although it is possible that the project will be discontinued. Agency priorities have thus far supported this project. However, as the state has migrated to an online student testing platform, it is hoped that some of the benefits of the SAS Enterprise Guide, Excel-driven Achievement Gap Tool can realized using online diagnostics.

Lessons Learned

Now that the program evaluation work of each agency has been discussed, and the insights from their respective research underscored, it is important to ask what benefits came to the group as a whole. First and foremost, the biweekly connection of the fellows through regular phone conferences enabled each fellow to clarify their research. Second, there was an added benefit that the group of fellows traced the overall scope of what effective program evaluation should look like when it is done with efficacy. In addition to those two overarching benefits, there were additional highlights that came from our two-year collaboration.

Creating a Vision

The main lessons learned were that without a vision, no successes can be expected. It took a great deal of time at the beginning of each program evaluation to plot a way forward that would be most feasible and beneficial to the agency. Then, and with that vision, it was possible to deal with the road blocks, speed bumps, and other challenges that occurred along the way.

Finding the Time

Like with the process of creating a vision, ample time must be allotted with an agency not only to scope a program evaluation, but also to conduct it and later to evaluate the results. In far too many agencies, a program evaluation is undertaken with the right steps and rigor, but afterwards no one in the agency is concerned about the results. Thus, it is incumbent on the program evaluator to maintain agency involvement at each step in the process.

Strategizing, Refining a Plan and Pushing Forward

Creating buy-in and prioritizing projects for program evaluation can seem like a daunting task, but even after these goals have been accomplished, obstacles to successful program evaluation still exist. The most vital element to the long-term success of program evaluation lies with stakeholder engagement. As you refine your evaluation processes and plans, ensure that you are building continued support for program evaluation from those that implement the programs themselves. The ultimate success of a program evaluation will be stronger when built from the ground up, rather than from a top-down mandate.

Completing the Task, What to Do Next

Developing stamina within an agency can be very difficult, especially with continually changing requirements imposed from outside agencies and fluctuating budgets available to districts and schools. As such, it might be in a context of waning interest that a program evaluation is conducted. However, this is where the program evaluation, if complete correctly, can have the most benefit for the agency.

Scaling and Building Out

Finally, after a program evaluation is successfully completed and the results are shared within the agency, there may be the possibility that future evaluations, instruments, or insights can be created and disseminated for the general good for the schools involved. This is not always the case in every program evaluation, but when these goals are able to be reached, the benefits can be quite impressive, especially within a broader context than that of the original program evaluation.

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Appendix A: Program Evaluation Standards Statements from the Joint Committee on Standards for Educational Evaluation[10]

Excerpted from:

Yarbrough, D. B., Shulha, L. M., Hopson, R. K., & Caruthers, F. A. (2011). *The program evaluation standards: A guide for evaluators and evaluation users* (3rd Ed.). Thousand Oaks, CA: Sage.

Utility Standards

The utility standards are intended to increase the extent to which program stakeholders find evaluation processes and products valuable in meeting their needs.

- **U1 Evaluator Credibility** Evaluations should be conducted by qualified people who establish and maintain credibility in the evaluation context.
- **U2 Attention to Stakeholders** Evaluations should devote attention to the full range of individuals and groups invested in the program and affected by its evaluation.
- **U3 Negotiated Purposes** Evaluation purposes should be identified and continually negotiated based on the needs of stakeholders.
- **U4 Explicit Values** Evaluations should clarify and specify the individual and cultural values underpinning purposes, processes, and judgments.
- **U5 Relevant Information** Evaluation information should serve the identified and emergent needs of stakeholders.
- **U6 Meaningful Processes and Products** Evaluations should construct activities, descriptions, and judgments in ways that encourage participants to rediscover, reinterpret, or revise their understandings and behaviors.
- **U7 Timely and Appropriate Communicating and Reporting** Evaluations should attend to the continuing information needs of their multiple audiences.
- **U8 Concern for Consequences and Influence** Evaluations should promote responsible and adaptive use while guarding against unintended negative consequences and misuse.

Feasibility Standards

The feasibility standards are intended to increase evaluation effectiveness and efficiency.

- **F1 Project Management** Evaluations should use effective project management strategies.
- **F2 Practical Procedures** Evaluation procedures should be practical and responsive to the way the program operates.

[10] Joint Committee on Standards for Educational Evaluation. (2014). Program evaluation standards statements. Retrieved from: http://www.jcsee.org/program-evaluation-standards-statements.

- **F3 Contextual Viability** Evaluations should recognize, monitor, and balance the cultural and political interests and needs of individuals and groups.
- **F4 Resource Use** Evaluations should use resources effectively and efficiently.

Propriety Standards

The propriety standards support what is proper, fair, legal, right and just in evaluations.

- **P1 Responsive and Inclusive Orientation** Evaluations should be responsive to stakeholders and their communities.
- **P2 Formal Agreements** Evaluation agreements should be negotiated to make obligations explicit and take into account the needs, expectations, and cultural contexts of clients and other stakeholders.
- **P3 Human Rights and Respect** Evaluations should be designed and conducted to protect human and legal rights and maintain the dignity of participants and other stakeholders.
- **P4 Clarity and Fairness** Evaluations should be understandable and fair in addressing stakeholder needs and purposes.
- **P5 Transparency and Disclosure** Evaluations should provide complete descriptions of findings, limitations, and conclusions to all stakeholders, unless doing so would violate legal and propriety obligations.
- **P6 Conflicts of Interests** Evaluations should openly and honestly identify and address real or perceived conflicts of interests that may compromise the evaluation.
- **P7 Fiscal Responsibility** Evaluations should account for all expended resources and comply with sound fiscal procedures and processes.

Accuracy Standards

The accuracy standards are intended to increase the dependability and truthfulness of evaluation representations, propositions, and findings, especially those that support interpretations and judgments about quality.

- **A1 Justified Conclusions and Decisions** Evaluation conclusions and decisions should be explicitly justified in the cultures and contexts where they have consequences.
- **A2 Valid Information** Evaluation information should serve the intended purposes and support valid interpretations.
- **A3 Reliable Information** Evaluation procedures should yield sufficiently dependable and consistent information for the intended uses.
- **A4 Explicit Program and Context Descriptions** Evaluations should document programs and their contexts with appropriate detail and scope for the evaluation purposes.
- **A5 Information Management** Evaluations should employ systematic information collection, review, verification, and storage methods.
- **A6 Sound Designs and Analyses** Evaluations should employ technically adequate designs and analyses that are appropriate for the evaluation purposes.
- **A7 Explicit Evaluation Reasoning** Evaluation reasoning leading from information and analyses to findings, interpretations, conclusions, and judgments should be clearly and completely documented.
- **A8 Communication and Reporting** Evaluation communications should have adequate scope and guard against misconceptions, biases, distortions, and errors.

Evaluation Accountability Standards

The evaluation accountability standards encourage adequate documentation of evaluations and a metaevaluative perspective focused on improvement and accountability for evaluation processes and products.

- **E1 Evaluation Documentation** Evaluations should fully document their negotiated purposes and implemented designs, procedures, data, and outcomes.
- **E2 Internal Metaevaluation** Evaluators should use these and other applicable standards to examine the accountability of the evaluation design, procedures employed, information collected, and outcomes.
- **E3 External Metaevaluation** Program evaluation sponsors, clients, evaluators, and other stakeholders should encourage the conduct of external metaevaluations using these and other applicable standards.

Appendix B: A Program Selection Rubric

Directions: List the high-potential programs, strategies or efforts, then score each of them.

Key: 0=Not at all; 5=Definitely

	Primary Considerations (1–5 scale)				Secondary Considerations (1–3 scale)		Other Considerations (0–1 scale)			
Program or Strategy	**Aligned to strategy**	**Large reach or plans for expansion**	**Significant investment of staff time**	**Significant investment of funds**	**Direct impact on learning**	**Politically feasible to change**	**Data available**	**Uncertain effectiveness**	**Total**	**Ranking**
Ex. Read 180	*4*	*2*	*4*	*4*	*3*	*1*	*1*	*1*	*20*	

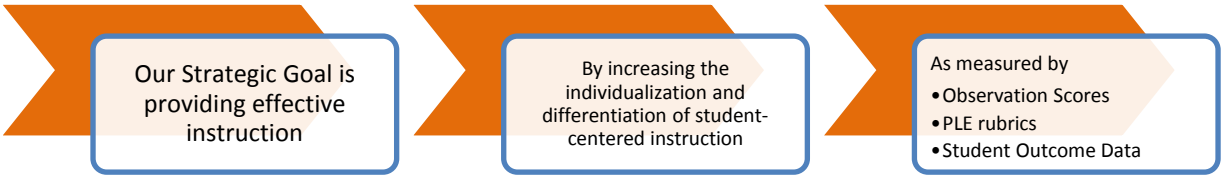
Appendix C: Evaluation of Personalized Learning Initiative, Knox County Schools

Overview – In SY1314, Knox County Schools made a significant investment in computing devices and associated professional development to fully integrate technology within a subset of 11 KCS schools. The resulting School Technology Challenge (STC) created a 1:1 student to device ratio with the main objective of increasing teacher effectiveness to drive increases in student outcome data. The STC theory of action highlights three areas of focus for meeting this main objective. The foci are listed below.

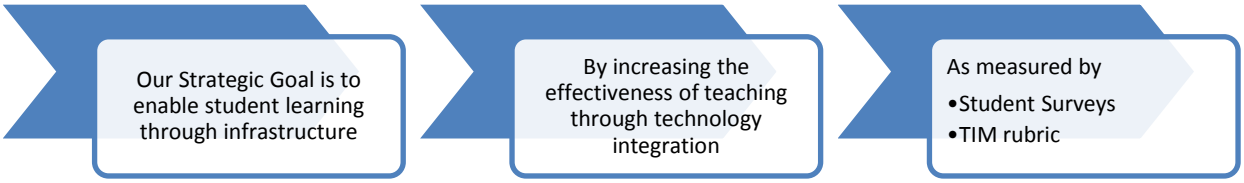
1) Increase the individualization and differentiation of student-centered instruction.
2) Increase student affinity, motivation and engagement in the classroom.
3) Increase the effectiveness of teaching through both 1) and 2) while integrating technology-based education aids.

Investment Analysis and Findings – The SY1314 formative analysis indicates that the STC is very clearly a work in progress. Data collected through focus groups, survey, and classroom observations indicate that the depth technology integration is likely not yet deep enough to move the needle on many key student outcome indicators. Results relating the STC theory of action are highlighted below.

- **Increasing Student Engagement, Motivation, and Affinity:** Common themes from teacher focus groups indicated that students were more engaged in classwork when the technology was used in the classroom. Student responses to pre and post deployment surveys corroborate this perception. TRIPOD data provides further evidence of student engagement as the Captivates domain was directional higher for STC schools (compared to control schools).
- **Attendance:** There was no statistical difference in the change in attendance rates between STC and control schools. There is little evidence to indicate that the STC had any impact on student attendance rates.



- **Increase the individualization and differentiation of student-centered instruction:** Rubrics regarding Technology Integration (TIM) and Personalized Learning (PLE) were scored from a pool of 112 randomly selected teachers. The majority of teachers scored in the earliest stage of technology integration. Teachers scored better on the PLE matrix, but almost all data indicated that teachers were operating in an "Emerging" state of personalizing the learning environment. The results echo common themes from the teacher focus groups. Respondents felt that this year was more of an experimental year to determine what processes worked in the classroom and what processes did not.



- **Increase the effectiveness of teaching through technology integration:** Since the depth of technology integration and personalization does not appear to be sufficient to fundamentally change the classroom experience, it is probably too early in the process to expect large changes in student outcome data. TVAAS data provides some directional evidence of school-wide increases, but the effects are not statistically different than the control group. There is no evidence yet of any systematic closure of performance gaps, and results regarding achievement data are similarly mixed. Focus group respondents felt they were better prepared to enter year two of the STC with strategies to deepen personalization and help significantly impact student outcomes.

Final Recommendations – It is important to note that the school technology challenge has always been viewed as a multi-year project. This analysis can serve as a formative signpost for the initiative, but it is too early in the life cycle for the project to determine its true worth to the KCS.

Based on the timeline for program implementation and review, the REA team makes the following recommendations in regard to the school technology challenge.

- KCS should continue to focus on continuing professional development, training, and promoting teacher-to-teacher collaboration to maximize the benefits of the STC.
- Available formative data and mid-year rubric scores should form the backbone of an interim formative analysis on STC implementation. Note, however, that formative data will be universally available only for elementary schools.
- Present the findings of the SY1314 formative program evaluation to the teachers at participating STC schools and begin the SY1415 cycle of data collection through teacher focus groups in the Spring of 2015.

Appendix D: Evaluation Planning Template (Page 1)

Program Parameters	
Project Name:	
Brief Description of Program w/ major goal:	
Reason for Evaluation (Check One)	
Compliance ☐ **Pilot/New Program** ☐ **Potential Expansion** ☐ **Potential Cessation** ☐ **Other (Specify)** ☐	
Description for "Other" :	
Frequency of Evaluation	
How often is a formal evaluation desired?	*Is an interim evaluation desired?* *How often is interim eval. desired?*
When will the final decision to continue or end the program occur?	
Requested Detail for Level of Evaluation and Reporting	
Memo ☐ *(1–2 pages outlining results of high level analysis)*	**Full Technical Report** ☐ *(Outlining of methodology and technical details of analysis)*
What are the projected funding sources for this project?	

Program Personnel	
Project Manager (Prime point of contact):	
Key Leadership and Practitioners (Name and Role) Provide more on attachment	**Participants (Schools, Subset of Students, etc.) Provide more on attachment**

Evaluation Planning Template (Page 2)

	What is the problem?	**How do I know this is a problem?**	**How am I addressing the problem?**	**What will happen if I solve the problem?**	**How will I know?**
	What problem or issue are we attempting to address?	What indicators illustrate that this is a problem?	What are the steps to being implemented in this program to address this problem?	What are the intended effects of the program on this problem?	What data are requested to measure progress?
Primary Goal					
Secondary Goal					
Tertiary Goal					
Attach additional sheets if more than three goals are targeted by the program.					