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A Problem-Solving Approach to Designing and Implementing a Strategy to Improve Performance

The job of school district leadership teams is to solve system-level performance problems. Graduation rates, achievement differences between racial and ethnic groups, college readiness, and early grade literacy are but a few of the problems faced by today's district leaders. Since 2003, faculty members of the Public Education Leadership Project (PELP) at Harvard University have worked with more than a dozen district leadership teams on improving performance across their entire systems using the PELP Coherence Framework.¹ The Framework places the instructional core (all of the dimensions of teaching and learning) at the center of a school district's work and connects it to the interdependent pieces of the organization through a strategy to improve performance (**Exhibit 1**).

A number of districts have used the Coherence Framework to successfully diagnose organizational problems, but have asked for more help with strategy design and implementation. In response, we developed a companion tool to help teams work through a problem-solving process that facilitates the design and implementation of a strategy for continuous improvement² (**Exhibit 2**). In addition to describing the process, this note provides key questions that leadership teams should answer for each step in the process, as well as illustrative examples (**Exhibit 3**).

Overview

The problem-solving approach to designing and implementing a strategy includes seven steps:

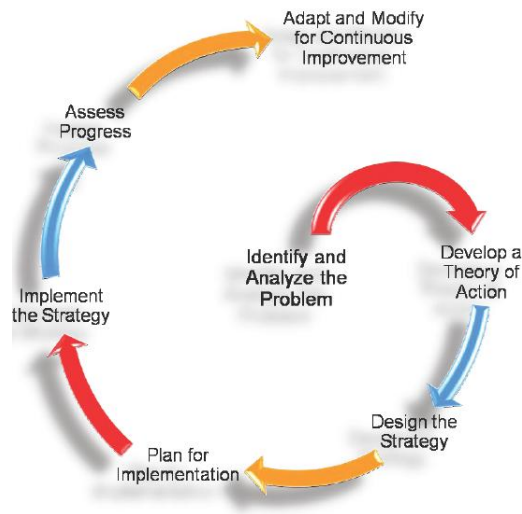
1. Identify and Analyze the Problem
2. Develop a Theory of Action
3. Design the Strategy
4. Plan for Implementation
5. Implement the Strategy
6. Assess Progress
7. Adapt and Modify for Continuous Improvement

Teams rarely move through each step sequentially, and might get stuck and revisit earlier steps throughout the process. However, each step is critical to improving system-wide performance. **Figure A** is a picture of the process.

Lecturer Stacey Childress and Research Associate Geoff Marietta prepared this note with extensive input from the faculty members of the Public Education Leadership Project.

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Figure A: A Problem-Solving Approach to Strategy Design and Implementation



Steps

Identify and Analyze the Problem. The first and most critical step of solving a performance problem is to accurately identify and rigorously analyze it. If a team does not take this step seriously, a lack of rigor will likely result in a weak theory of action. At first glance, this may seem to be the easiest of the steps in the process – after all, it is not difficult to brainstorm a long list of problems. However, it is much more challenging to figure out what is really going on. Problem definitions that focus on blaming others such as “there isn’t enough money” or “the union is against it” are tempting because they absolve us of responsibility for taking action. We challenge you to look internally at your district’s practices and results, and be ready to recognize what role the district office might play in the problem. As Rick DuFour (2004) puts it, rather than focusing outward on forces over which you have little control, your team should identify a problem that is within its sphere of influence. DuFour calls this looking “in the mirror” instead of “out the window.”³

The performance problem your team selects should be grounded in the instructional core. In your analysis, other important issues (resources, stakeholders, politics etc.) might emerge as contributing factors or as implementation challenges. However, they do not fit the criteria for a performance problem grounded in the instructional core. In defining and addressing the problem, it is important to engage a range of participants who can contribute first-hand knowledge and insight based on their recent experience in classrooms and schools. Keeping this in mind, the team should answer the following questions:

- What is the performance problem we are trying to solve? Describe it in simple terms with no jargon (no more than a sentence or two). Be sure that it is linked to activities and outcomes related to the instructional core (students, teachers, academic content).
- What concrete evidence do we have to back up the short description we developed? Will this evidence enable us to communicate the nature and importance of the problem to staff and stakeholders? How will we test our assumptions with them and learn from their feedback?
- What are three or four observable symptoms of the problem we identified? What are the root causes of each symptom?

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Table 1 provides an example of a root cause analysis technique called the “5 Whys.” The method is widely-used in various continuous improvement processes.⁴ Your team should use your answers to the earlier questions about the problem and its symptoms as a way to get started. For each symptom, you should ask the question, “Why?” a number of times until you reach an actionable root cause. Experts say this usually takes five “whys”, hence the name of the method.

In the table below, we articulated a problem that many urban districts share and identified three common, observable symptoms. We then answered a series of “whys” for each symptom by moving down the columns of the table. Your team might only need four “whys” to uncover a root cause, as in symptom 3 in the table, or you might need six. The number is not as important as finding an actionable root cause. Most problems have more than three symptoms, and some symptoms have more than one root cause. In order to keep the illustration as simple as possible, we chose only three symptoms and followed the root cause process once for each. Clearly, additional or alternative paths exist for each symptom and it is important for your team to explore multiple options in your analysis. Also, remember to look in the mirror rather than out the window as you go through the process.

Table 1: Root Cause Analysis Guide (With Example)

Problem: In our district, there are significant differences in academic outcomes between subgroups of students K-12, predictable largely by the race and ethnicity of the students.		
Symptom 1: By 3 rd grade, gaps are present on state reading exams.	Symptom 2: Our high school A/ P and Honors courses are disproportionately enrolled by White and Asian students.	Symptom 3: 95% of White students graduate from our high schools, but only 73% of African-American and 70% of Hispanic students graduate
▼	▼	▼
Why? African-American and Hispanic students on average score 20 points lower than White and Asian students.	Why? African-American and Hispanic students enroll in A/ P and Honors courses at much lower rates than their overall % of the student body	Why? Beginning in 9 th grade, these students begin dropping out at faster rates, and it accelerates every year of high school.
▼	▼	▼
Why? We have anecdotal evidence that students come to K with different levels of pre-literacy skills, but no hard data about the nature and scale of the differences for individual students, or how they progress.	Why? Fewer students in these sub-groups have the prerequisites, especially in mathematics.	Why? They do not see the relevance of high school courses today or in the future.
▼	▼	▼
Why? We don't perform diagnostic assessments of students in grades K - 2.	Why? Very low numbers of African-American and Hispanic students have completed Algebra by the 8 th grade.	Why? To prepare them for the HS exit exam, their coursework is focused on basic skills and not connected to later opportunities.
▼	▼	▼
Why? We don't have valid tools to diagnose or respond to the different learning needs of students in these early grades.	Why? When we begin sorting students into different math ability levels in fourth grade, these students are disproportionately assigned to the “regular” math track.	Why? These students come into HS multiple grade levels behind and must take double blocks of reading and math, limiting their opportunities to take courses that might interest them.
▼	▼	▼
Why? We have not invested in the tools our teachers need for diagnosis or the skills or curriculum they need to effectively differentiate.	Why? Many students are not getting what they need for success in K-3 math, and the others are often placed in courses below their ability levels.	Why?

Source: Example created by the authors based on actual situations in urban districts.

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After your team has identified a number of possible root causes, you should address two more questions before moving to the next step:

- Is it possible to prioritize the root causes that emerge from our analysis? Often it is not possible to do everything at once, and your team should develop a common point of view about where to start. One way to force your team to prioritize is by asking, “If we only had time or money to tackle one or two root causes, which ones do we believe would have the most impact?”
- What are the consequences of *not* solving the problem? Be specific. How will a failure to act affect students over the long-term? How will it impact district-wide performance in the medium term?

Develop a Theory of Action. The next step is to articulate a theory of action for how to solve the problem you identified by attacking its root causes. As with any theory, a district’s theory of action is a statement about cause and effect. In other words, which actions does your team think will lead to your desired results? You should be able to map the elements of your theory back to the root causes you uncovered in your problem analysis. Using “if...then...” statements to articulate the theory of action can help ensure that your team is focused on testable predictions about cause and effect rather than ideology or personal philosophy. Below is an example of a theory of action that might flow from the root cause analysis in Table 1 on page three:

All students should have access to rigorous academic content, which they can master if they are adequately prepared beginning in kindergarten. We also believe that our teachers are committed to their students’ learning, but might not have the skills or curriculum they need. We acknowledge that our entire system currently has institutional barriers that a) sort children away from our most rigorous courses, and b) thereby reinforce widely-held but inaccurate assumptions about the ability of all children to master rigorous content if given the right supports. Therefore:

If we:

- 1. invest heavily in diagnostic assessment, differentiated instruction, and effective literacy curriculum beginning in kindergarten,*
- 2. remove the institutional barriers and sorting mechanisms that begin as early as fourth grade,*
- 3. open up access to rigorous high school courses rather than viewing them as appropriate for only a few, and*
- 4. give our principals and teachers all of the support they need to change their practice and their beliefs in order to meet the new expectations,*

Then, over time, not only will we eliminate achievement gaps that are predictable by race and ethnicity, we will also raise the bar for all of our students because of our focus on rigorous course work for every child.

Below is a set of questions to answer as your team works out its own theory of action.

- What specific actions do we think will reduce or eliminate the effects of one or more of the root causes we identified in the previous step? Answer this question for as many root causes as you can.
- Why do we think these actions will lead to the results we desire? In other words, what assumptions are we making about how kids learn? How adults learn? How our team

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operates? About our context or environment? About our students and their families? Another way to think about this step is, “What do we have to believe for our theory to have merit?” As you will notice in the example above, stating these assumptions upfront can help everyone understand what beliefs underpin your theory of action.

- From the above analysis, construct a series of “if...then...” statements that communicate the theory of action.

Design the Strategy. Your strategy is simply the set of coherent actions you will take to put your theory into practice and solve the problem you have identified. It should include the target of the intervention (particular student groups, grade levels, content areas, or employee groups), the specific actions that will be taken, and the timetable for implementation and results. In addition to identifying the activities of your strategy in this step, you must diagnose the level of coherence in your organization with your new strategy.

Below is an example of a four-part strategy statement that might flow from the theory of action on page four. Note that it includes concrete actions, the groups affected, benchmarks and timelines.

- *We will deploy a new K-2 diagnostic literacy assessment for every child, along with the technology, curriculum, and training for our teachers to use the assessments and make differentiated instructional decisions based on the results. We will begin the rollout next fall and be fully operational in 18 months. Every kindergartener entering our system in fall of 2010 will be assessed and taught with this new approach. By the third year of full implementation, we expect 80% of our kindergarteners to finish the year with 90% or above proficiency in pre-literacy skills, with no identifiable differences by race or ethnicity. We expect that using this approach K-2 will translate into similar results on the 3rd grade state reading exam.*
- *We will immediately allow high school students to sign up for Advanced Placement and Honors courses without the requirement of a teacher’s recommendation. We realize that students need an academic foundation to be successful in these courses, so we will still have requirements, such as scoring at certain levels on the PSAT in relevant subjects. All students will be required to take the PSAT, and principals will be held accountable for participation rates so that taking the test does not become another barrier. If these changes result in oversubscription of higher level courses, we will invest in expanding capacity to meet the demand. Over several years, we expect the changes we are making in the early grades to dramatically increase demand for AP and Honors courses, and will begin to prepare now for that projected demand.*
- *We will backward map the AP content standards for advanced math courses such as Calculus and Statistics all the way to kindergarten and align our curriculum with these standards so that every child in our system has an equal opportunity to master rigorous high school math content. As a result, we expect 90% of our students to complete Algebra by the 8th grade starting five years into implementation. We will begin to prepare now for increased demand for 6th, 7th, and 8th grade Algebra classes as we make staffing decisions and provide professional development.*
- *Every teacher, principal, and central office administrator will be held accountable for goals that are in line with this strategy and relevant to their own roles. Because this new approach requires a dramatic shift in the expectations of teachers, principals, staff, students, and parents, we will begin aligning all of our organizational systems and structures, resources, and culture to help people change their practices and beliefs to support the new strategy.*

The example above is a comprehensive academic strategy. Introducing a new academic strategy usually requires a number of supporting strategies, such as introducing an induction program for new teachers, changing the evaluation system for principals, or redesigning the central office to better support

the work of schools. The problem-solving approach discussed in this note is also relevant and valuable for designing and implementing supporting strategies.

The following questions can be helpful in developing your own concrete strategy:

- What set of actions will we take to put our theory of action into practice? How do the specific actions map back to the assumptions about cause and effect that underpin our theory of action?
- Who will be affected by our actions (students, stakeholders, employees)?
- What is a reasonable timeframe over which the actions have to be consistently implemented to achieve results? (Build this directly into your strategy statement.)
- Are the relevant systems, structures, resources and culture of our organization likely to make it easier or harder to effectively implement the strategy? If they make it harder, what changes are needed in order to increase the likelihood that we can implement the strategy well? (If you have significant diagnostic work to perform in this area, consult the Note on the PELP Coherence Framework for guiding questions about each piece of your organization.⁵)
- What are the specific short, medium and long term targets we will hit if our strategy is successful?

Plan for Implementation. Preparing to implement the strategy is as important as implementation. In this step, your team should identify the resources needed to successfully execute the strategy. These might include financial resources, people, and/ or technology. Pay particular attention to the people aspects of the implementation plan. A strategy's success or failure is largely dependent on the ability of the relevant staff members to perform the tasks that make the strategy come to life, and it is important to identify knowledge or skill gaps in the planning phase. Don't overlook the political support that you might need, both within the system and outside it. Your team should also anticipate challenges that are likely to come up during implementation and find ways to address them in advance.

Questions to ask during this step are:

- What steps will we take to implement our strategy? *Who* will do *what* by *when*?
- What material resources are required to implement the strategy? (curricular materials, technology, physical space, etc.)
- Is new training needed to ensure that the people asked to implement pieces of the strategy have the skills they need to do their best work?
- How much will the implementation cost? How will we pay for it? Will there be savings in other areas related to the new strategy?
- What are the implications for teachers, principals, and central office staff if nothing changes? This question helps uncover particular groups who might feel threatened by the changes you propose.
- How will we build support for the strategy, especially among stakeholder groups who think that they may lose out as a result of the change?

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- What roadblocks (both internal and external) are we likely to encounter? What can we do to prevent or quickly address them? Who will be accountable for managing the response to roadblocks?
- Who – individual or group – will “own” the implementation – in other words, who will ensure that people and schools have what they need and are actually performing the work necessary for a successful implementation?
- What are some specific benchmarks we will measure throughout the process to assess whether or not the implementation is on track? What indicators will let us know if the strategy is as effective as we imagine it will be? What measures should we put in place to assess the validity of our theory of action and test the assumptions embedded in the theory?
- Are there systems in place to collect the data needed for the indicators developed above? If not how will we create them? Who will be responsible for analyzing the data that is gathered? Is there an existing team that is the logical group to make decisions based on the analysis? If not, should we create an ad hoc team for this purpose? Who should be part of this team?

Implement the Strategy. During this step, people must have the resources, knowledge, skills and support they need at all times in order to implement the strategy with fidelity. While this sounds straightforward, the implementation phase is where great strategies go to die – in business as well as in education. To paraphrase a well-worn business cliché, a second-rate strategy that is well-implemented always beats a first-rate strategy that is poorly-implemented.

During implementation, district leaders need to take the time to ensure that everyone understands the strategy, how his or her particular job or task contributes to the overall effort, and why it is important. District leaders must also solicit feedback and suggestions from those who are implementing the strategy—typically teachers and principals. In addition to the necessary skills, employees must have the will to implement. In our work with school districts, we often observe a “volunteer” approach to implementation. If staff members engage in the new strategy, great. If they do not, leaders bemoan the lack of fidelity of implementation, but often take little or no action to understand why things are not working or to change staff behavior. Accountability mechanisms are necessary to reinforce the new behaviors you are asking of people, but so is the managerial courage to critically assess the work of district leaders and to enforce consequences when staff members choose not to engage in the strategy.

During this step, roadblocks will surely arise, and the owner(s) of the implementation phase must address them immediately. Usually these barriers can be overcome, but occasionally a bump in the road is an opportunity to learn important information that will help improve the strategy. Feedback loops that enable the organization to learn and continuously improve are critical to successful implementation over time. Guiding questions for the implementation step include:

- Do people understand how their day-to-day actions are related to the strategy? Is the strategy meaningful to them?
- Are we providing the supports people need to enable them to successfully perform the work required of them during the implementation phase?
- Are people actually implementing the strategy as it was designed? If not, why not? Are there consequences for failing to implement the strategy?
- What is the process for making sure that all participants provide regular feedback that will allow us to continuously improve performance by adapting the strategy as we learn?

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Assess Progress. While implementation is underway, you should be collecting, analyzing, and making decisions based on data about three dimensions: 1) the progress of the implementation; 2) the effectiveness of the strategy; and 3) the validity of the theory of action. Below are suggested questions for each dimension:

Implementation

- Is the data we are gathering the best data for assessing our progress? Are we asking the relevant stakeholders to give us input about the implementation?
- Are we achieving all of the milestones we set during the implementation planning step? Are we on track in terms of timelines? Budget projections? Staff allocations?
- If we are missing milestones, why is that happening? Was the initial schedule unrealistically ambitious? Did we underestimate the time certain activities would take to accomplish? Did our forecasts fail to account for important factors? Have barriers come up that were unexpected? Should we adjust our expectations or accelerate our efforts in order to meet our original targets?
- Are individuals and/or teams engaging productively in the activities that the strategy requires? If not, why? Is it a problem of skill, which would call for us to provide more training and development? Or, is it a problem of will? Are some people opting out of the whole approach, believing that “this too shall pass.” If so, what steps will we take to help people change their behavior? If this is ineffective, what will we do?
- If our implementation seems on track but we are missing our targets, should we reexamine our strategy or our theory of action? Did we misdiagnose the root causes of the problem?

Strategy

- Assuming our implementation indicators are positive, do the interim performance results in the areas in which our strategy should have impact match the expectations we had during the design phase?
- If not, what can we learn from our feedback loops that might help us revise the strategy to make it more effective? Are there alternative activities that might be more powerful?

Theory of Action

- What do our interim results tell us about our predictions about cause and effect?
- Have we learned anything during implementation of our strategy that challenges any of the assumptions embedded in our theory? About our diagnosis of root causes?

Adapt and Modify for Continuous Improvement. Throughout the implementation of the strategy, you might discover new problems or miss original targets. By adapting and modifying the implementation plan, the strategy and the theory of action as more information becomes available, leadership teams can accelerate their progress. Modifications could be as simple as addressing an unforeseen skill gap in key personnel or as complicated as adapting to changes in state regulations. As teams pursue the difficult work of solving performance problems, they should take time to recognize when they make real progress in tackling the root causes that contribute to the problems. Questions that can help in thinking about this ongoing step are:

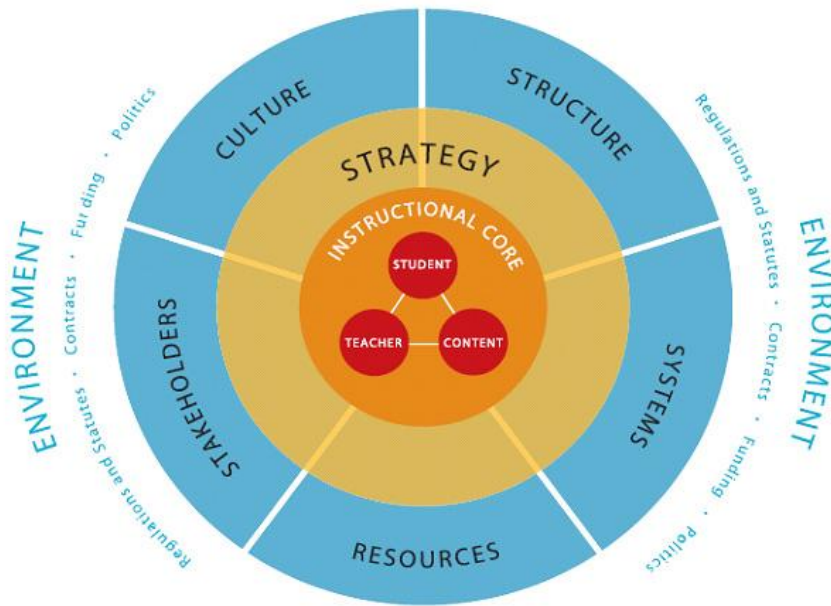
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- How should we respond to the information generated in the “assess” step?
- If we are making progress in solving the initial problem we identified, what adjustments do we need to make to our approach now that one or more of the root causes might be diminishing in importance?
- How can we create opportunities for the people involved in the work to celebrate progress while maintaining a sense of urgency about solving difficult performance problems over the long term?

Conclusion

Adopting this problem-solving approach is an effective way for teams to produce better outcomes for students across a school district. When used in combination with the PELP Coherence Framework, the process can help district leadership teams effectively design and implement a strategy to ensure that high-quality teaching and learning happens every day in every classroom. Continuous improvement is by its nature a never-ending journey, but one that can be rewarding when educators who are committed to their students see the results of a deliberate and strategic approach to solving performance problems.

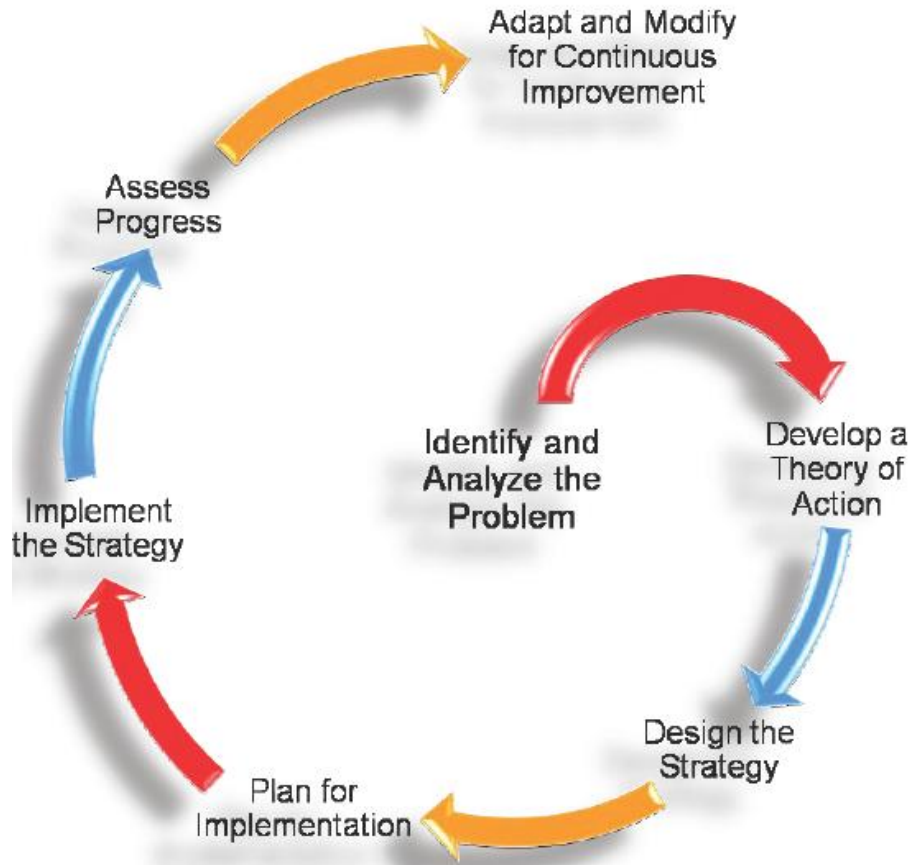
Exhibit 1: The PELP Coherence Framework



Source: Public Education Leadership Project

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Exhibit 2 Problem-Solving Approach to Developing and Implementing a Strategy to Improve Performance



Source: Public Education Leadership Project

Exhibit 3 Problem-Solving Approach to Strategy: Guiding Questions for Each Step

Identify and Analyze the Problem

- What is the performance problem we are trying to solve? Describe it in simple terms with no jargon (no more than a sentence or two). Be sure that it is linked to activities and outcomes related to the instructional core (students, teachers, academic content).
- What concrete evidence do we have to back up the short description we developed? Will this evidence enable us to communicate the nature and importance of the problem to staff and stakeholders? How will we test our assumptions with them? How can we learn from their feedback?
- What are three or four observable symptoms of the overall problem we identified? What are the root causes of each symptom?
- Is it possible to prioritize the root causes that emerge from our analysis? Often it is not possible to do everything at once, and your team should develop a common point of view about where to start. One way to force your team to prioritize is by asking, “If we only had time or money to tackle one or two root causes, which ones do we believe would have the most impact?”
- What are the consequences of *not* solving the problem? Be specific. How will a failure to act affect students over the long-term? How will it impact district-wide performance in the medium term?

Develop a Theory of Action

- What specific actions do we think will reduce or eliminate the effects of one or more of the root causes we identified in the previous step? Answer this question for as many root causes as you can.
- Why do we think these actions will lead to the results we desire? In other words, what assumptions are we making about how kids learn? How adults learn? How our team operates? About our context or environment? About our students and their families? Another way to think about this step is, “What do we have to believe for our theory to have merit?” As you will notice in the example above, stating these assumptions upfront can help everyone understand what beliefs underpin your theory of action.
- From the above analysis, construct a series of “if...then...” statements that communicate the theory of action.

Design the Strategy

- What set of actions will we take to put our theory of action into practice? How do the specific actions map back to the assumptions about cause and effect that underpin our theory of action?
- Who will be affected by our actions (students, stakeholders, employees)?

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- What is a reasonable timeframe over which the actions have to be consistently implemented to achieve results? (Build this directly into your strategy statement.)
- Are the relevant systems, structures, resources and culture of our organization likely to make it easier or harder to effectively implement the strategy? If they make it harder, what changes are needed in order to increase the likelihood that we can implement the strategy well? (If you have significant diagnostic work to perform in this area, consult the Note on the PELP Coherence Framework for guiding questions about each piece of your organization.)
- What are the specific short, medium and long term targets we will hit if our strategy is successful?

Plan for Implementation

- What steps will we take to implement our strategy? *Who* will do *what* by *when*?
- What material resources are required to implement the strategy? (curricular materials, technology, physical space, etc.)
- Is new training needed to ensure that the people asked to implement pieces of the strategy have the skills they need to do their best work?
- How much will the implementation cost? How will we pay for it? Will there be savings in other areas related to the new strategy?
- What are the implications for teachers, principals, and central office staff if nothing changes? This question helps uncover particular groups who might feel threatened by the changes you propose.
- How will we build support for the strategy, especially among stakeholder groups who think that they may lose out as a result of the change?
- What roadblocks (both internal and external) are we likely to encounter? What can we do to prevent or quickly address them? Who will be accountable for managing the response to roadblocks?
- Who – individual or group – will “own” the implementation – in other words, who will ensure that people and schools have what they need and are actually performing the work necessary for a successful implementation?
- What are some specific benchmarks we will measure throughout the process to assess whether or not the implementation is on track? What indicators will let us know if the strategy is as effective as we imagine it will be? What measures should we put in place to assess the validity of our theory of action and test the assumptions embedded in the theory?
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Implement the Strategy

- Do people understand how their day-to-day actions are related to the strategy? Is the strategy meaningful to them?
- Are we providing the supports people need to enable them to successfully perform the work required of them during the implementation phase?
- Are people actually implementing the strategy as it was designed? If not, why not? Are there consequences for failing to implement the strategy?
- What is the process for making sure that all participants provide regular feedback that will allow us to continuously improve performance by adapting the strategy as we learn?

Assess Progress

Implementation

- Is the data we are gathering the best data for assessing our progress? Are we asking the relevant stakeholders to give us input about the implementation?
- Are we achieving all of the milestones we set during the implementation planning step? Are we on track in terms of timelines? Budget projections? Staff allocations?
- If we are missing milestones, why is that happening? Was the initial schedule unrealistically ambitious? Did we underestimate the time certain activities would take to accomplish? Did our forecasts fail to account for important factors? Have barriers come up that were unexpected? Should we adjust our expectations or accelerate our efforts in order to meet our original targets?
- Are individuals and/or teams engaging productively in the activities that the strategy requires? If not, why? Is it a problem of skill, which would call for us to provide more training and development? Or, is it a problem of will? Are some people opting out of the whole approach, believing that “this too shall pass.” If so, what steps will we take to help people change their behavior? If this is ineffective, what will we do?
- If our implementation seems on track but we are missing our targets, should we reexamine our strategy or our theory of action? Did we misdiagnose the root causes of the problem?

Strategy

- Assuming our implementation indicators are positive, do the interim performance results in the areas in which our strategy should have impact match the expectations we had during the design phase?
- If not, what can we learn from our feedback loops that might help us revise the strategy to make it more effective? Are there alternative activities that might be more powerful?

Theory of Action

- What do our interim results tell us about our predictions about cause and effect?
- Have we learned anything during implementation of our strategy that challenges any of the assumptions embedded in our theory? About our diagnosis of root causes?

Adapt and Modify for Continuous Improvement

- How should we respond to the information generated in the “assess” step?
- If we are making progress in solving the initial problem we identified, what adjustments do we need to make to our approach now that one or more of the root causes might be diminishing in importance?
- How can we create opportunities for the people involved in the work to celebrate progress while maintaining a sense of urgency about solving difficult performance problems over the long term?

Endnotes

¹ Childress, Stacey, Richard Elmore, Allen S. Grossman, and Caroline King, “Note on the PELP Coherence Framework,” PEL-010, Harvard Business School Publishing, 2004.

² PELP faculty members developed this problem-solving model, but similar approaches exist in many continuous improvement processes. Our model was adapted from a number of unpublished pieces developed by Stacey Childress that focus on developing social enterprise business plans and evaluating the efforts of social entrepreneurs.

³ DuFour, Rick. “Leading Edge: Are You Looking Out the Window or In the Mirror?” *Journal of Staff Development*, Summer 2004 (Vol. 25, No. 3)

⁴ The “Five Whys” were developed originally as part of the Toyota Production System, and have been adopted and refined as part of the Six Sigma quality improvement process. A similar approach to root cause analysis exists in the Baldrige system and other continuous improvement processes.

⁵ Childress, et al. “Note on the PELP Coherence Framework.”