THE NATIONAL CENTER ON SCALING UP EFFECTIVE SCHOOLS

Lessons Learned about Designing Innovation

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Conference Paper
October 2015

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This paper was presented at NCSU's second national conference, Using Continuous Improvement to Integrating Design, Implementation, and Scale Up. The conference was held on October 7-9, 2015 in Nashville, TN. The author is:

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This research was conducted with funding from the Institute of Education Sciences (R305C10023). The opinions expressed in this article are those of the authors and do not necessarily represent the views of the sponsor or the National Center on Scaling Up Effective Schools.

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This paper was developed with assistance from Education Development Center, Inc., and was supported in part by a grant from the Institute of Education Sciences.

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Abstract

For the past two and one-half years I have been a practitioner participant in the National Center on Scaling Up Effective School's (NCSU's) work with Fort Worth Independent School District. I have a unique vantage point, being one of the few members remaining who has been involved since the very beginning. In addition, my work with NCSU has straddled two campuses and two positions (teacher/administrator), which has afforded me several different lenses on the work of this project. My experience with this innovation design has led to three observations in the areas of (1) constraints, (2) leverage, and (3) processes. While these themes do not fit neatly under a single umbrella, they authentically reflect the variety of challenges and successes I have experienced.

Firstly, I suggest that constraints are equally as important as thinking outside the box when the innovation design process is being undertaken by practitioners. Secondly, I think the most successful elements of innovation arise from areas of leverage within the system. We simply cannot add more stress to the system, without providing immediate relief somewhere else. Third, building a process for implementation and change is possibly more important than the actual change that will be implemented. This parallels the idea that we must build the capacity of teachers to design and lead before we expect them to be able to do so.

Lessons Learned about Designing Innovation

In February of 2013, my principal at the time asked me to participate in a district design team. I was not sure what that meant, but I trusted my principal and said I would do it. The District Innovation Design Team (DIDT) turned out to be a partnership between my district, Fort Worth Independent School District (FWISD), and the National Center For Scaling Up Effective Schools (NCSU). The objective, as I understood it, was to take a group of faculty from three different campuses in our district and guide us through a process of developing and implementing a plan to increase student ownership and responsibility (SOAR).

The process covered a span of two and a half years, and I experienced it in four phases. For the first five months, we looked at preliminary data and were taught some basic theory behind innovation, design, and implementation. Then, over the next year, we were guided through the process of designing and piloting the district innovations on our campuses. Over the last year we used a Plan/Do/Study/Act (PDSA) cycle to implement and refine the innovation. Overlapping with the last PDSA cycles, we spent about six months working to scale up the innovation to other campuses.

The SOAR initiative in FWISD was designed to have two key components: growth mindset and problem solving. All of the campuses included an additional component on goal setting. These components were designed to be built into each campus using a common language, and they were supposed to be tied into regular instructional practices with some element of monitoring and feedback.

My personal work on the project spanned two campuses. When the program began in early 2013, I was finishing my ninth year teaching math at Arlington Heights High School (AHHS). I was the math department chair, and I was heavily involved in several committees

dedicated to campus leadership and program development. In August of 2014, I took on an Assistant Principal Internship position at South Hills High School (SHHS). On both campuses, I participated in the DIDT, as well as played key roles in the school-based innovation design teams (SIDTs). These committees were the key actors in the implementation and revision/refinement of the district innovation (SOAR). Serving on these different committees (DIDT and SIDT) at different campuses (AHHS and SHHS) in two different positions (teacher leader/administrative intern) afforded an interesting perspective on the work and the effects of leadership at different levels of the innovation design process.

Leadership Roles

I identify three different leadership roles I played during my work with NCSU. I was a vocal, engaged, and consistent participant in the district level design process. In fact, only a handful of the original campus-level participants remained involved in the DIDT past the second year. In this role, I developed a depth of knowledge about the design process and a key perspective on the reasoning behind design decisions made by the DIDT. My second role was that of a teacher leader on the AHHS SIDT. As a teacher leader, I held meetings, planned agendas, facilitated the creation of professional development among the SIDT, led professional development for the campus staff, and implemented program elements in the classroom and with students. The last leadership role I played was at SHHS. I stepped into a team that was struggling to develop a clear plan of implementation. I took on the role of organizer, facilitator, and director. My initial task was to get the team moving forward, with a vision and energy. At SHHS, however, I was the Administrator over the SOAR initiative. At the time, I did not fully realize the importance of this distinction, nor did I initially think it was separate from my role as designer and facilitator with the SIDT. In hindsight, my new leadership was tied to my voice as

a spokesperson for campus management and no longer connected to the work I did in my own classroom with my own students. As the year progressed, my leadership shifted increasingly towards oversight and support.

Context

The two schools in which I worked were of comparable size, (about 1,800) students. AHHS is demographically more or less split equally among white, Hispanic, and African American students. SHHS has a student population that is about 85% Hispanic. AHHS has a long-standing legacy in the community, with well-established academic and athletic programs tracing roots in the community for more than 65 years. SHHS is a very young campus, in contrast, graduating its first class of seniors in 2000. Like the schools, the teachers at each campus have different attitudes. AHHS teachers are very independent, and there is a cadre of teacher leaders involved in campus decisions, delivering professional development, and rolling out campus initiatives. In contrast, SHHS administration has more oversight and direction in the plans, initiatives, and training of the teachers.

The DIDT and SIDT teams on both campuses had individuals who brought diverse sets of experiences and skills. Nonetheless, there is a body of knowledge and experiences that the teams needed to share to be able to participate fully and appropriately in the design and implementation processes. NCSU introduced and revisited key concepts including the Design Charrette for prototyping, using data protocols, the Concerns Based Adoption Model for implementation (CBAM), and the Plan/Do/Study/Act (PDSA) cycle for refining, and revising, and sustaining the innovation.

Lessons Learned

Within this setting, I learned several powerful lessons about the role of leadership at different levels of an organization during innovation design and implementation. My lens on leadership spans district, teacher leader, and administrator roles, and my reflections include my personal experiences leading the design process through those lenses. The three most significant lessons I learned involved designing with leverage in mind, navigating constraints creatively, and designing processes as part of the innovation.

Design with Leverage in Mind

The most important lesson I gleaned from my work with NCSU is the value of identifying areas of leverage within the existing system. The SIDT teams at both schools found ourselves discussing leverage frequently in an effort to create an innovation that would be welcomed by the staff. At one point at AHHS, we posed the question to ourselves, "What kind of initiative would our teachers actually want to see and be a part of?" As a teacher leader on the committee, I was able to make sure that our discussion stayed focused on ideas that remained aligned with the SOAR objective of building student ownership and responsibility. This conversation drove many design decisions.

For example, the AHHS SIDT developed a single student lesson taught across all seven classes on the second day of school. The reasoning was that, as teachers, we knew students would be shifting schedules, but that was valuable time that could still be used for teaching important information. Instead of losing hours for advisory periods during the first six weeks of school, we preferred to cover this material in a single day of SOAR lessons. At the heart of this decision is a win-win alignment of the right task at the right time. The objective was to first establish a common language on campus for growth mindset and problem solving with a long-

term aim to fundamentally shift the campus culture. Setting the tone for the school year through a unified message to all students from all teachers on the second day is presumably more effective than trying to get the same results through discrete advisory lessons slid in between content lessons sprinkled throughout the school year. By consolidating the lessons and locating them at the beginning of the year, we reasoned we would have a bigger impact than spreading out the same message. The notion of leverage needed some amount of discussion and clarification on both campuses, but the general consensus was that any new innovation needed to replace or modify some other obligation that teachers were already expected to perform. Any new innovation needed to serve multiple purposes, make particularly efficient use of time and resources, or expand the organization's capacity to improve student learning.

Another example of leverage is visible in the adoption of goal setting on all three campuses. While goal setting was not a part of the original district-level innovation, the campuses all used the skill of goal setting as a link between growth mindset and problem solving. Goal setting made growth mindset and problem solving visible in the process of students setting personal goals. It was an efficient way to introduce the innovation while simultaneously engaging students as the goal-setters, thus establishing student ownership from the beginning. When parts of a new initiative in a school do not have leverage, the teachers feel it the most. They end up trying to adopt practices that take precious time and energy and do not ease any other burdens related to the job.

This dilemma became apparent when asking teachers to incorporate problem solving protocols into their lessons. Here, as a teacher leader at AHHS, I was given immediate feedback from other teachers regarding the danger of asking fellow teachers to do "one more thing." At SHHS, however, when I would vocalize the need to incorporate problem solving into lessons,

teachers were comparatively silent. As a campus administrator, teachers cannot speak as plainly about the overloaded expectations for fear of being perceived as resistant and unsupportive of school initiatives. In a sense, it is campus administrators who must seek out leverage the most because their decisions have the widest and deepest impact on how time and energy is spent. As a teacher leader, however, I had a better sense of what would be effective because I was closer to the problem and the solution. That is not, of course, always the case, and often administrators have perspectives over the whole system that allow them to see areas for efficiency and leverage that cannot be seen from the lens of a single classroom. Regardless of where we stand, however, the lesson I learned was clearly that a new innovation or policy that will require the time and effort of others should be designed to alleviate inefficient and ineffective practices that currently exist.

One final demonstration of leverage in my work with NCSU was the implementation of grow sheets at SHHS. Grow sheets are a simple form that students fill out after they misbehave but before a teacher writes a referral. This form allows students to reflect on their behavior and take an opportunity to find a solution before the consequence escalates. This simple intervention is powerful because it creates a new path to resolution of discipline issues, while creating documentation, and fostering a growth mindset and problem solving. Innovations like the grow sheet have few negative side effects and can expand the capacity of the entire organization. While the design process is intended to be free from constraints and wildly creative, my experience was that the most effective elements of our SOAR innovation were located at points of leverage within the existing system. Leaders at all levels have an obligation to look for these opportunities during the design process.

Navigating Constraints During the Design Process

My second powerful lesson is closely related to the search for leverage. Innovation design ought to identify critical constraints in the organization and avoid wasting energy and losing momentum. Prototyping an innovation during the design process is a necessarily creative and outside-the-box process. After all, the entire goal is to find a new solution, so plenty of distance needs to exist from the old "solutions" that did not work. Brainstorming possibilities—no matter how impractical—can reveal new paths of thinking and new perspectives on the problem that could ultimately lead to a novel and brilliant solution. I believe this. I really do. Yet, multiple times, during the past two years, I watched time slip away as various teams at every level chased ideas around which had fatal flaws that made them unworkable under the existing conditions. Interestingly, this occurred most often in the district-level team. Members of the DIDT lobbied for innovations that required time and resources that were not remotely feasible. My conclusion is that the leader must foster an environment where all ideas are heard and added to the landscape of possibilities, but the time and energy must be directed towards solutions that move the overall design process forward. Educators do not have the luxury of ruminating endlessly on solutions that have obstacles and flaws that are larger than the original problem that is being explored.

One example was a plan to build student ownership and responsibility by purchasing iPads for every student. Of itself, this idea is not bad, and certainly it could address the needs at hand. However, the problems created by this solution, such as lack of money, infrastructure, and public input, make it of limited value to our team. Several team members felt strongly that this was the "best" solution, so we lost over an hour discussing hypothetical technology-related

scenarios without making any real progress on the very real problem—student ownership—we needed to solve with the resources we actually did have available to us.

I found this habit of chasing unrealistic solutions so prevalent that I started to notice a secondary effect. After our team explored solutions that had great potential but failed to account for some unavoidable constraint, we felt a huge emotional collapse of energy and enthusiasm. As a leader in the SIDTs, I found that I had a significant influence in the productivity of the group by identifying the fundamental constraints of the organization and how they would affect our work. This was not the same as stopping any ideas that sounded difficult or problematic. The leader's role was to prevent the team from spending time on impossible solutions. Of course, that means risking my own misjudgment of what could be possible. In practice, I found that pausing the discussion and expressing something as simple as, "Team, I think we need to pursue a different solution because…" usually moved the team forward. Interestingly, I found that naming some of the constraints early on in the brainstorming process promoted more creative thinking.

When I began my work with SHHS, this was my primary role. The team had become unproductive and argumentative. As soon as I started giving them constraints, they could narrow down their ideas and make plans. I facilitated their discussions at first and guided them towards areas where I perceived leverage; yet, over the course of the year I stepped farther away from guiding and leading their thinking directly. As a campus administrator, my role is increasingly about communicating constraints and identifying leverage. As a teacher leader, I was far less privy to information regarding the budgetary, personnel, and scheduling limitations that were affecting my school.

There is an ethical dimension to constraints, as well, that is worth mentioning. Teachers and administrators have different views of how policies and initiatives affect all stakeholders in the educational process. Leaders at both levels have an obligation to advocate for the legal and ethical needs of the stakeholders with whom they work. This articulation and awareness of ethical and legal constraints can prevent poorly planned innovations from having unintended and potentially damaging side effects. One manifestation of ethical constraints is the overrepresentation of the needs of the members of the design teams. The SHHS SIDT did not have meaningful representation from the English Department this past year, so the discussions always lacked a key perspective. Ideas would occasionally be tossed around that would be particularly difficult for the English teachers to implement. The team made a concerted effort to recognize the needs of these unrepresented groups and design the innovation with all teachers in mind.

Designing Processes as Part of the Innovation

The final lesson reflects the tendency to talk about and plan the "next new thing," but then deliver it in the same package we have been using for years. On both campuses, the majority of the energy went into designing the elements of problem solving, growth mindset, and goal setting. Only after those pieces were discussed and planned did we face the problem of how we would introduce it to the faculty or "roll it out." Speaking honestly, the team was usually exhausted by the time we got to this part of implementation. We had produced great new frameworks, or lessons, or posters, or whatever, but we were stuck on how to present "it" to the campus. Our best energy and ideas had been exhausted, and now we needed to pass this on to teachers and students. Sometimes, there was a deadline to meet as well, so the presentation of

the material or the professional development component would not receive the attention or energy it warranted.

In my experience, the delivery of the new innovation is equally as important as the innovation itself. The delivery of the innovation is, in a sense, half of the innovation, or else, it is the hinge on which the innovation moves from plan to practice. If the innovation involves pre-made lessons to teach students about growth mindset, how will we "train the trainers?" New processes for interacting with the staff and students must be designed with as much care as the components of problem solving. On both campuses, some sort of advisory was used, but the designed use of that time was very different. I found the use of faculty meetings, professional development days, emails, voluntary trainings, etc. must be chosen strategically, and the quality of the "roll out" must match the quality of the innovation. Sending out directions for implementation via email ignores the dialogical nature of change as well as removes any opportunity for clarification or discussion. Without face-to-face interaction between designers and implementers, the burden of following the directions falls squarely on the implementers and may result in compliance but will not foster collaboration. At one point, we wanted teachers to have significant input in the revision of the goal setting strategy. However, we were unable to find opportunities to meet with the staff, so we ended up sending quite a few emails. In hindsight, we lost an important element of teacher ownership in the innovation because we did not have a more effective process for gathering teacher input. Another important example is the all-too-common scenario in education when a team crams too much information into a meeting at the beginning or end of an otherwise full day. Participants leave feeling frustrated and irritated, not by the quality of what was presented, but by the almost unusable package in which it was delivered. When a presentation team runs out of time—or worse, does not even plan—for

clarifications and questioning, how can teachers come to a common understanding of what student ownership really means in regard to growth mindset and problem solving? As the words are used without a common meaning, the activities lose integrity. Well-designed processes for implementation manage the time limits for explaining new activities or make effective use of pilot groups. The campus participants must have clearly defined processes for providing input into the revision and modification of the strategies being implemented. Additionally, data results measuring progress (or lack thereof) ought to be designed into the implementation process from the beginning, not merely thrown in. By giving teachers a well-planned map of how the innovation will be introduced and monitored, teachers can have more confidence when committing time and energy to the initiative.

Teachers have a right to know how they will learn the content and skills needed to support the innovation. This process of campus learning will take time and resources that would be used for other campus goals and initiatives. Thus, the process for implementation must be well-designed and efficient. I believe techniques for planning, such as practicing presentations to small groups—identifying where teachers may be resistant, clearly communicating non-negotiables, and clarifying how implementation will be measured and monitored—must be completed by the design team prior to introducing the innovation to the staff. Planning implementation processes cannot be taken for granted. More often than not, I found that teams were more comfortable generating new ideas for the innovation than working on presenting the information to their peers. I maintain that communicating any element of an innovation to a large faculty should be clear, strategic, professional, and purposeful.

Similarly, tools for the members of the SIDT to collaborate must be established and refined. The leaders of these committees must make sure all members are able to participate in

meetings and decision-making processes. The administrative leader has, possibly, a greater obligation to ensure this because teachers may naturally defer these sorts of structural processes to the team member with the highest positional authority. Designing processes for the entire school to collaborate and give input, however, may be best situated with teacher leaders. At SHHS, collaborative sessions within content professional learning communities (PLC's) had positive responses from participants when their peers facilitated the discussions. In my experience, administrators need to be present, supportive, and engaged, but teacher leaders can more effectively establish new processes for campus learning and collaboration.

Conclusion

During the design process I became comfortable holding a tension between planning and acting. These two elements create a critical feedback loop between generating ideas and implementing ideas. The DIDT and SIDT committees on which I served were dynamic groups, and I observed how leadership at different levels of the organization impacts campus change. The design and implementation of a campus-created innovation has the potential to foster a common language and change the campus culture. Growth and capacity increased among the people and the systems involved in the PDSA cycles. As I have shared, my personal growth and learning aligns with three observations from my experience with design and implementation. The best designs make use of leverage within the existing system to add efficiency or capacity without adding additional burdens to the individuals working within the system. The best designs navigate constraints that can unnecessarily absorb time and energy. Lastly, the best designs include detailed processes for implementation.

Teacher leaders and administrators both play fundamental roles in the design and implementation process. Each leader holds a different position with access to different

information and different perspectives. Combining leadership from both levels with a well-designed innovation is a promising practice for improving schools.