Ten Key Ideas for Designing High Quality Professional Development

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Knowledge Management and Dissemination

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MSP Knowledge Management and Dissemination Project

Goal: To synthesize knowledge generated through the Math and Science Partnerships and integrate it into the broader knowledge base for education reform

- Deepening Teacher Content Knowledge
- Teachers as Intellectual Leaders
- Involvement of STEM faculty
- Professional Learning Communities

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MSP Knowledge Management and Dissemination Project

- Knowledge reviews
- MSP sustainability cases and cross-case analyses
- Database of measures of teacher content knowledge
- Papers and presentations

www.mspkmd.net

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What do we know?

How well do we know it?

- from empirical research
- from expert practitioner knowledge

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Review of empirical research

- Identified more than 1000 “studies” on PD to deepen teacher mathematics content-related knowledge
- Approximately 90% of the studies were screened out because:
  - They were advocacy or opinion pieces, not research
  - They were studies of pre-service teachers only
  - They did not include a measure (quantitative or qualitative) of teacher content knowledge.
- Applied standards of evidence to 28 studies of mathematics PD

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What research tells us

- Available research points to some elements of effective PD, but provides very little guidance about how to design and implement PD for particular purposes in particular kinds of situations

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An emerging consensus on effective pd

- Focuses on content knowledge and how students learn content
- Involves a substantial number of hours
- Sustains focus over time
- Models effective practice, including active learning experiences
- Engages teachers in communities of learning
- Involves active participation of school leaders

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Synthesis of expert practitioner knowledge

- Applied process of collecting and vetting practitioner knowledge from various sources:
  - MSP leader interviews, on-line discussion boards and focus group reflections
  - On-line collection of insights, evidence, and examples (modified Delphi Panel) from panels of experienced practitioners, researchers and evaluators

- Created insights that include:
  - Advice synthesized from experienced practitioners
  - Quotes from program leaders (including MSP leaders)
  - Examples from MSP programs
  - 2-4 paragraphs in length; 4-6 insights/knowledge review

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What practice tells us

- Available practice knowledge offers “sensible propositions” that provide guidance for PD design which is more contextualized and nuanced than found in empirical research, *and* serve as hypotheses for research

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Ten Key Ideas for Designing High Quality Professional Development

- Why ten?
- How are they “key ideas”?
- Why design, and not implementation?

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Don’t let form trump substance

- Be clear about the purpose(s) for professional development, and choose strategies and materials that will best achieve those purposes

- Don’t select a PD strategy first (e.g., PLC) and then identify purpose; purpose is what matters and should drive choice of strategy

What is the purpose of the PD?

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Avoid reinventing the wheel

- Use existing high quality professional development materials if available
- Look to leverage materials/resources on what is already available in the system; repurpose if possible (i.e., hold the mindset that everything *shouldn't* be developed new; set limits on how many new materials will be part of PD)

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Avoid reinventing the wheel

- Limit the dollars/resources that go to developing materials for professional development; every dollar spent in development is one less dollar for implementation and support for users

What amount can be spent for PD materials?

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Design PD to facilitate transfer to the classroom

- Make explicit, in PD design, the implications for classroom practice; share images of what PD means for classroom practice (video images, written accounts, observable examples)
- Articulate a process by which transfer to the classroom happens (i.e., more than “and now the teacher figures out how to transfer this knowledge/these skills to the classroom”)

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Design PD to facilitate transfer to the classroom

- Note that PD (as in acquisition of knowledge and skills) is generally a shorter period of time than transfer to the classroom (as in implementing what has been learned into practice); it takes longer to change and sustain change in practice than it does to learn something

How is PD manifested in the classroom?

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Make your theory of action explicit

- Articulate a theory of action – be clear about how intended PD work is expected to make a difference (where, under what conditions)
- Identify outcomes expected in the short term and outcomes sought in long term; articulate how short-term outcomes fit into a plan of ongoing improvement

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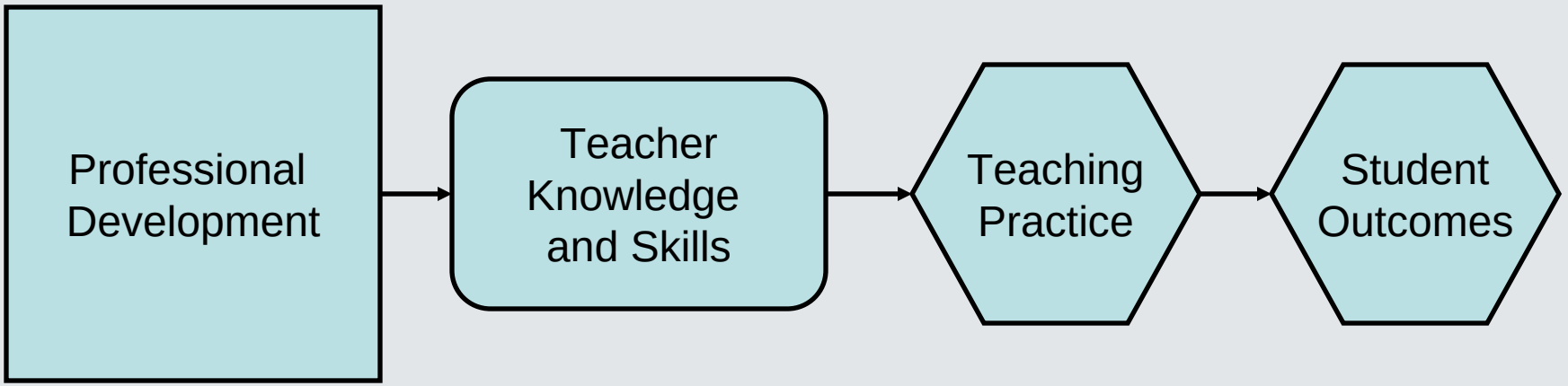
Simplified Logic Model for Professional Development



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Make your theory of action explicit

- Note that a theory of action helps us to think about impact (what outcomes?), not just about implementation (what actions?)

What is the relationship between PD and impact on students?

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Consider how you will reach all teachers

- Design with going to scale in mind (all teachers? most? x%?); don't design something that only works for the most capable

- Accept that there will likely be teachers who are committed to *not* changing, and be clear about how many resources to invest in them; those committed to *not* changing, usually small, is different from those who may be resistant to changing or unsure about changing or reluctant to do the work of changing

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Consider how you will reach all teachers

- Plan for turnover among teachers and administrators (estimate what % will likely leave the district); develop a game plan for addressing the holes that might be left when those "trained" leave and a plan for building capacity of those who weren't in the district for PD at the outset

How many teachers to reach, over what time frame?

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Five key ideas down; five to go

Reflect for a moment:

- Which of these key ideas resonates the most for me?
  or
- Which of these key ideas am I still trying to make sense of?

Turn and talk to someone next to you:

- Identify which question you reflected upon
- Share your thinking

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Be realistic

- Be very clear about what resources are available to implement professional development (and build a scenario for what to do if resources are cut)

- Be very clear about what human capacity is available to implement professional development (and build a scenario for what to do if “staff” are cut or no longer available)

What is the best and the worst case scenario regarding available resources?

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Understand the system you are trying to change

- Every system is perfectly designed to get the results it gets (Michael Patton); to change results, you need to change the system
- Articulate the incentives for teachers, administrators and others impacted (what's in it for them?) as well as identify the obstacles encountered (what stands in the way of change?)

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Understand the system you are trying to change

- Be clear about intentions to change the system versus only implement a new PD agenda; hold goals that are greater than carrying out a new PD agenda

What part of the system is PD meant to impact?

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Recognize that you can't do it all…at least not all at once

- Act upon the idea that any plan is implemented in pieces (you can't do it all), so be strategic about where to start

- Consider quick wins/low hanging fruit – where can something be implemented early with biggest impact (either for PR purposes or as existence proof or for early impact)

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Recognize that you can't do it all…at least not all at once

- Be willing to redesign to get around obstacles and take advantage of opportunities that arise; figure out, going in, a process for redesign (e.g., periodic review of implementation plan to monitor and fine tune)

What is a strategic place to start?

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Trust but verify

- Check to see that what is being implemented is consonant with the plan (and if not, why not); remember that PD plans are just that – plans – and may not be carried out in implementation

- Monitor to see that PD at scale is of comparable quality to what was implemented at outset (scaling up PD carries the risk that the quality may go down, if the question of human capacity needed to implement PD isn't taken seriously)

How do you know what PD looks like when implemented?

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Base decisions on the best evidence available

- “Pressure test” a PD design prior to implementation; what evidence is there that this PD is likely to have an impact in this context?
- Articulate evidence of impact in short term that can help to develop/extend buy-in for ongoing professional development

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Base decisions on the best evidence available

- Be clear about what “counts” as evidence that progress is being made toward goals of PD; identify benchmarks of progress (so you know to keep going) as well as distress signs (so you know when changes are needed in the design or implementation)

What is credible evidence that PD is unfolding as planned and having the desired effect?

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Last five key ideas

Reflect for a moment:

- Which of these key ideas resonates the most for me?
  or
- Which of these key ideas am I still trying to make sense of?

Turn and talk to someone next to you:

- Identify which question you reflected upon
- Share your thinking

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Take key ideas for a test drive

A discussion task for groups of 4 people max

- Select and apply 3 key ideas to your PD design thinking
- Make use of the guiding question for each key idea
- Assume that you will be making your own assumptions about the scenario provided (e.g., what PD, how delivered, when, experienced by whom, provided by whom)

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You are a math supervisor in a district where there's been a history of math PD – primarily after-school workshops – although the last two years there has been less math PD because of a district-wide emphasis on literacy. You are looking ahead to new curricula at middle and high school in the next few years; you are aware of the gap between Common Core State Standards and the current state standards; you are anticipating that 20% of your most veteran teachers will retire in the next three years.

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You are committed to continuing to work to deepen teachers' content knowledge so that they can do the best job possible with classroom instruction and assessment. You are designing a two-year PD plan for elementary, middle and/or high school.

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Cliff notes version

- you: math supervisor
- history of math PD (after-school workshops)
- recent emphasis on literacy
- new curricula coming up at ms and hs
- gap between CCSS and state standards
- 20% of teachers will retire in next 3 years
- committed to deepen teachers' content knowledge for impact on classroom instruction and assessment
- you: design 2-year PD plan for ele, ms and/or hs

Discussion task

- Select and apply 3 key ideas to your PD design thinking
- Make use of the guiding question for each key idea
- Assume that you will be making your own assumptions about the scenario provided (e.g., what PD, how delivered, when, experienced by whom, provided by whom)
- Use as much or little of scenario as you want

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Debrief

- Show of hands: Which key ideas did you apply in your scenario discussion?
- Show of hands: Which key idea(s) will you apply to your own PD design thinking?
- Show of hands: Applause for your good thinking and insights

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Reminder

MSP KMD products are available at
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Slides for this presentation will be posted there within the week

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