Teacher learning on the job: towards pedagogically productive talk

Studies show that, on average, teachers’ effectiveness as measured on student outcomes peaks after three to five years, plateauing thereafter. This startling statistic suggests that we need to radically rethink our professional development systems. In this talk I argue that we have been looking for teacher learning in the wrong places, and that we should shift our focus – from formal learning activities in professional development workshop to informal processes of learning on the job. Such processes are closely related to the ways in which we talk to one another about teaching, students, learning and curriculum. I will share data from my own and others’ research about teacher collaborative discourse; advance a model of pedagogically productive talk, which has the power to advance teacher learning; and discuss the challenges of facilitating such talk in schools.
Classroom event

- 5th grade Language Arts lesson, introduction to persuasive writing
- Two pupils perform for their “mother” texts about joining a soccer club
Text #1:
Mom, on Sunday there is going to be a trial lesson in the village soccer club. You know, Mom, that soccer is an ancient game in which ten players run after a ball but it also develops esprit de corps, collaboration, motor coordination, quick thinking, the ability to plan, movement... My Mom, articles prove that youth spend hours in front of the computer and television and tend to become obese. And I? I want to go play outside...

Text #2:
Mom, on Sunday there is going to be a trial lesson in the village soccer club. If kids come and stick with it, they'll create a team that will play in the league. Mom, I know you're opposed because I'm already registered in three clubs, but please!!! I have to go with my friends. You approve, right? Come on, Mom.... please.
Some questions

1. Why attend to teacher professional conversations?

2. What do we talk about when we talk about our practice?

3. What forms of teacher talk might be pedagogically productive?

4. What are the challenges to cultivating pedagogically productive talk, and how are we addressing them?

5. How is it going? (Some productive problems of practice)
Relocating teacher learning – from CPD to work

Professional learning happens all the time, for good and for bad, as consequence of engaging in work (and not as an event separate from work)


Picture of Jacob M. Gershberg standing at head of patients bed, with staff, during grand rounds. US National Library of Medicine.


While all agree that teacher learning from experience is steepest in the first 3-5 years, the claim that it plateaus after that, i.e. learning stops, has been recently contested. See, in particular, the discussion of methodological advances and review of 30 studies’ findings in Kini, T., & Podolsky, A. *Does Teaching Experience Increase Teacher Effectiveness? A Review of the Research* (Palo Alto: Learning Policy Institute, 2016).

“On average, teachers working in schools at the 75th percentile of professional environment ratings improved their effectiveness in teaching mathematics 20% more than teachers in schools at the 25th percentile after five years. This gap almost doubles after 10 years.”
Why teacher professional conversations?

Sometimes a group is smarter than its individual members (i.e., the whole is greater than the sum of its smarts)

But sometimes the opposite is the case: the group is not as smart as each of its members, and indeed causes them to act stupidly

The first picture is of Building 20 at MIT, otherwise known as the “magical incubator”, a temporary structure that was home to 9 Nobel award-winning scientists. See https://libraries.mit.edu/archives/mithistory/building20/, or Jonah Lehrer’s account in his article on groupthink, here: http://www.newyorker.com/magazine/2012/01/30/groupthink.
The second picture is of the Social Sciences and Humanities building at my home university, where I work, though I could have brought many examples of dysfunctional university departments.
Why professional conversations? (2) Discourse shapes...

- **Gaze**: What we can see; What we notice as important – e.g. distinguishing figure from background.
- **Speech**: What we can say; Who can say what.
- **Thought**: What is thinkable; What is considered to be unquestionably true or foolish.

---


My colleagues and I have applied some of Goodwin’s ideas to teaching and teacher education:


And in another paper with Yael Pulvermacher, which is not yet published but I’m happy to share.
An example:
What do you see?
What does a radiologist see?
“With little chance for the type of feedback-driven practice that leads to improvement, radiologists do not necessarily get better with more experience. A 2004 analysis of half a million mammograms and 124 American radiologists was not able to identify any background factors of the radiologists, such as years of experience or the number of yearly diagnosed mammograms, that were related to accuracy of diagnosis. The authors of that study speculated that the differences in performance among the 124 radiologists might be due to the initial training the doctors received before starting independent practice.”

Ericsson and Pool cite the following study:

David Didau: http://www.learningspy.co.uk/leadership/is-teaching-a-wicked-game/
Teacher informal learning – an example

- Fraic, a history and geography teacher, arrives in a new school
- Edited excerpt from “Entre Les Murs” (The Class), directed by Laurent Cantet
- What does he learn in his first hour at work?
Hi, I'm Herv

What does Fraic learn in his first hour at work?
What might the staff learn from such conversations?

- **Terms for identifying students:** “tough but good kids”, “nice”, “not nice”, “not nice at all”
- **Academic expectations:** “teaching multiplication tables, and sometimes mathematics”
- **Being a teacher in the school:** solidarity, survival, veteran status

Only 90 seconds. But if repeated over time, and if the dominant discourse in the school....

The authors explain:

“Project Challenge was a 4-year intervention led by scholar/researchers at Boston University. Its purpose was to provide challenging mathematics education for potentially talented students in Chelsea, Massachusetts, the lowest-performing district in the state. Project Challenge served 400 Chelsea students, starting in fourth grade and following through to seventh grade. More than 70% of these students qualified for lunch aid, and over 60% spoke languages other than English at home.

The Project Challenge intervention included 1-hour class every day of high-demand mathematical tasks and structured teacher-led talk. Project Challenge teachers were trained to use a variety of academically productive talk moves and talk formats designed to press students to explicate their reasoning and build on
one another’s thinking. After 2 years, the proportion of students rated as showing a “high probability of giftedness in mathematics” on the Test of Mathematical Abilities rose from 4% to 41%. At the end of 2½ years, the class average on the California achievement test showed that Project Challenge students performed at high levels in computation, mathematical understanding, and problem solving. Most impressive of all, after 3 years of this kind of instruction, 82% of the Project Challenge students scored “Advanced” or “Proficient” on the Massachusetts state assessment—which is generally judged to be the most demanding in the United States. The state average of proficiency was 38% (see Figure 7.5). Finally, in a post hoc, quasi-controlled comparison of students who had been eligible for Project Challenge but were not selected, the differences between Project Challenge students and their matched controls was significant and effect sizes were large (1.8); (see Figure 7.6). Most surprising of all, there was transfer to English.”
Some questions

1. Why attend to teacher professional conversations?

2. What do we talk about when we talk about our practice?

3. What forms of teacher talk might be pedagogically productive?

4. What are the challenges to cultivating pedagogically productive talk, and how are we addressing them?

5. How is it going? (Some productive problems of practice)
Norms of privacy → avoidance of problems

“Schoolteaching has endured largely as an assemblage of entrepreneurial individuals whose autonomy is grounded in norms of privacy and noninterference and is sustained by the very organization of teaching work.” (Little, “The Persistence of Privacy”, 1990)

When problems do emerge....

- “Ventilation”, blowing off steam
- Consolation (“normalizing” problems)
- Quick solutions, “tips and tricks”

Little: “Collaborations may arise naturally out of the problems and circumstances that teachers experience in common, but often they appear contrived, inauthentic, grafted on, perched precariously (and often temporarily) on the margins of real work.”


The most prevalent meetings in Horn and colleagues' (2016) purposive sample of 24 well-regarded teacher workgroups focused on “tips and tricks”, logistics and curricular pacing, activities that were associated with fewer opportunities to learn than the less frequent collective interpretation meetings.


Lots of other good research in the field, by the Little and Horn, and by others. In particular, I’d recommend:


Radical contextualism

Maybe you should try....

That may work well for you; my class is different.
Gap between practice and talk about practice

“In open discussion, the first response of the teachers in the groups we assembled was to criticize the teachers in the recordings... But this soon gave way to the admission that episodes like these were familiar, and although traditional order could still be found, classroom relations in urban comprehensive secondary school contexts in London had changed.”


Also well worthwhile:
Conversations about classroom video-recordings

Harshly judgmental, often dismissive

Intuitive, impressionistic

Attributing everything to the teacher

Focusing on what’s missing: “I would have liked to have seen...”
• Are these phenomena familiar?
  – norms of privacy
  – ventilation, normalization and quick solutions
  – radical contextualism
  – gap between practice and talk
  – harshly judgmental
  – focus on what’s missing
• What do we learn from them?

I’d love to hear how things are in your settings. Let’s talk about it after the session. Or write to me. Or tweet about it.
alefstein@gmail.com
Some questions

1. Why attend to teacher professional conversations?

2. What do we talk about when we talk about our practice?

3. What forms of teacher talk might be pedagogically productive?

4. What are the challenges to cultivating pedagogically productive talk, and how are we addressing them?

5. How is it going? (Some productive problems of practice)
“Productive” to what end?
Pedagogical reasoning and adaptive expertise

- **Sensitivity** to notice what’s happening;
- **Interpretation** to accurately make sense of what’s going on;
- **Repertoire** of strategies to act and respond flexibly;
- **Judgement** to choose the best course of action.

On adaptive expertise see:

Pedagogically productive talk

a) focused on problems of practice;
b) anchored in rich representations of practice;
c) multi voiced: different perspectives are shared and attended to;
d) involves pedagogical reasoning: the use of evidence, explanations, and reasons to interpret classroom events and weigh and justify courses of action;
e) generative orientations toward students, learning, content and teaching; and
f) balances support and critique: fostering trust and collegiality, on the one hand, and critical inquiry on the other.
Some questions

1. Why attend to teacher professional conversations?

2. What do we talk about when we talk about our practice?

3. What forms of teacher talk might be pedagogically productive?

4. What are the challenges to cultivating pedagogically productive talk, and how are we addressing them?

5. How is it going? (Some productive problems of practice)
Challenges to advancing teacher learning through professional conversations

1. **Organization**: creating teams with a shared object, carving out time for regular meetings;

2. **Culture**: cultivating productive discourse norms, through protocols, modeling, and reflection;
Protocol norms → adaptive expertise

- Description
- Analysis
- Means of coping
- Advantages and disadvantages
- Sensitivity
- Interpretation
- Repertoire
- Judgement

All our materials (almost entirely in Hebrew, for now) are available on-line here:
http://dialogicpedagogy.com/cultivating-discourse/
See also:
Challenges to advancing teacher learning through professional conversations

1. **Organization**: creating teams with a shared object, carving out time for regular meetings;

2. **Culture**: cultivating productive discourse norms, through protocols, modeling, and reflection;

3. **Representation**: making practice available for inquiry, e.g. through video recordings, or documenting student work;

4. **Leadership**: facilitating teacher discourse requires a unique set of skills and dispositions.

5. **Systemic approach**: career trajectories, incentive structures, support systems.
Some questions

1. Why attend to teacher professional conversations?
2. What do we talk about when we talk about our practice?
3. What forms of teacher talk might be pedagogically productive?
4. What are the challenges to cultivating pedagogically productive talk, and how are we addressing them?
5. How is it going? (Some productive problems of practice)
Back to Sarit

- First discussion of the video with her teacher team: overly focused on the protocol, stilted, unhelpful
- Discussed her experience with the community of leading teachers
- Second, restructured discussion: much better but a little too late
- Development of a well-structured video case disseminated throughout the network
Some of our problems of practice

1. **Agency and appropriation**: exerting ownership, and embedding the tools in local culture, entails changing them

2. **Face-work**: ever-present in work with video – an impediment to but also potential catalyst of learning

3. **Framing teaching events as problems of practice**

4. **Principals’ involvement**: a double-edged sword

5. **Pace of research vs. pace of intervention**.

6. **System stability**: too much or too little funding, personnel turnover, pace.

7. **Cultural change**: “work” or “workshop”?

We’ve written about appropriation and face-work – please e-mail me for copies of the in-press (the former) and yet-to-be-accepted-for-publication (the latter) articles.

alefstein@gmail.com
Thank you!

Adam Lefstein - alefstein@gmail.com