

## Table 2: Charlotte, Sherelle, Ray, Michele, Maryl

Charlotte, Sherelle, Ray:

- how we perceive data, and how others perceive our data may be different.  
Charlotte noticed when reading the book that the researchers are focused on teacher learning, while the teachers – or at least Charlotte – are focused on how to improve student learning; Charlotte is not looking at ‘my learning’ or changes in the conversation over time.
  - Michele: that’s interesting, because in her experience, many teachers have difficulty looking at student learning
- Ray: we’re worried that our research may not be acceptable, the best. Sherelle is not comfortable with the data she has collected.
  - Maryl: research is iterative refinement; you always learn something, though you may need to modify research question in relation to the data you’ve collected to identify what you’ve learned.
  - David: I’m interested in understanding what teachers mean when we say “data” - evidence can be a variety of things, and what specifically are you talking about, and what’s the purpose, and why collect those data (over all others), and how will that move the conversation forward.
- Often we collect far too much data. Charlotte: How do you pick what’s important? One part of it, all of it?

Examples:

- Sherelle: last year research on motivation, survey with kids: what classes did they feel most successful, why, what motivated you to be successful? Then collected data on some of the techniques we used and an assessment. Survey just showed me things like relationships between the teacher and students, not info. on the impact of different forms of assessment which is what we were after.
  - Maryl: You learned something about kids’ general views of motivation (that relationship with teacher is a big factor, etc.) Different question but still worthwhile. And you learned also something about the need for targeted instruments.
  - Sherelle: yes, but we had only one shot that year, so it’s frustrating. We felt we wanted to “prove” – is that wrong? If not, is it necessary? because that can limit the focus.
  - David: the assessment drives the inquiry rather than finding an assessment that fits the question. It’s not wrong/right, depends on purpose.
  - Charlotte: so many options for data, gets frustrating.
  - Sherelle – we surveyed all students, 3 open-ended items – but then how to reduce the data? we don’t know how to do it; we tried to write down themes; but some of the data were not worth it and then we didn’t use it. Michele: if do it over again, what would you do?
  - Sherelle: I don’t know - should I have educated the kids on what ‘motivation’ means? David: what did you learn about research;

- Sherelle: it verified that research is really hard; survey questions have to be more specific - they were too wide open so learned little about the kids.
- Maryl: not 'little,' just not the information you intended to collect
- Ray: is it a recurring theme in research on Ts' perceptions of data that we're trying to confirm something we already think? or are we trying to find out what we don't know? What should we be doing? I recognize that it depends on purpose, but I wonder, are the data (too) limited for teachers?
  - Michele: maybe, but think about it not as limited but as serving a different purpose.
  - Ray: in my PLC, we generate tons of data, and that's where it stops; we thought we knew what we were going to do with the data, but my colleagues don't know what to do next – e.g., we've scored the written conclusions on a rubric, and we've dealt with some issues re inter-rater reliability but I'll set that aside, because my point is that we get these numbers and the nos. aren't seen as a means – i.e., what's it telling us about our students and our teaching? I think the problem is people's philosophies that gathering the data is about scoring rather than mining the data for interesting questions; Ts view it as assigning a grade.
  - Maryl/Michele ask how he has handled this;
  - Ray: I guess I 'bullied' them through looking deeper and not scratching the surface of writing conclusions – and we're getting better at designing our own instruments, common scoring, etc. – but still we have to take on a tougher phase, those tough conversations, and quite a few don't want to go there. So I've been treating this [in his own mind?] like a training phase for future conversations.
  - Ray wanted to code student errors (fr. Minstrell), and the group had no idea why.
  - David: there can be a lot of important conversation about what the "1" "2" etc. mean when scoring;
  - Ray: a little of that comes up, but not much in my group; some members have been trained in scoring by the state, and people talk just the nos. which is basically like state training.
  - Maryl: so Ray is pushing against the state norm of focusing on numbers by trying to get the group to discuss patterns, patterns of performance.
  - Ray: Group will say things like 'give the students 4s because it's the end of the year, and they need encouragement.' and I want them to analyze the student work.
  - Charlotte: they *can* give them the grade of 4, but that's different from analysis of data for their inquiry question.
  - Michele: what was the goal of group?
  - Ray: conclusions. maybe I erred because we're all science teachers – I figured, 'they're familiar with inquiry... and conclusions...' etc. but no.... The score is the end -- grading rather than patterns. I want them to notice patterns like vague terminology, or just repeating the question – how can we get kids to write a claim statement in that first sentence?

- Maryl discusses relationship between classroom assessment and inquiry. It seems that teachers' interpretations and practices of classroom assessment are influencing their interpretations and practices of inquiry
- Charlotte agrees: in our building, Ts are giving a "formative assessment" every 6 weeks, and that's all they seem to think FA is. I view it as every day; Ts are resisting that in my building – just scoring the common assessment and comparing who's doing well. So that's the same thing – same mentality: 'gather the data, score, and that's the end and record where the kids are at.' Missing reflection on the teacher piece, at most it's just 'let's give the assessment again and see what happens.'
- Charlotte: in my PLC, we did pre-post assessment on conclusions and used Minstrell FACETS; we noticed that on the pre, kids lost most points because they didn't label their data; so we scaffolded the whole process with a graphic organizer 3 times, all teachers, then post-assessment; that conversation was very powerful "this kid is missing this because..." and included 'we're not sure what's going on' – 'do the kids know what the data mean?' So we decided, we'll teach kids how to interpret data! Okay, but then we realized that's too vague, so we decided line graphs and trends but outside of math (because kids can look like they get it in math when they don't); we gathered data on kids' interpretations of line graphs, and we decided the questions are crappy; we used multiple choice, and kids may have guessed. Frustrating. When I talked with some kids, I realized that they got answers wrong (or right) for surprising reasons - e.g., kids resisted "0" as an answer for 'lowest amount of salt' because they believed that 0 is no amount, hence can't be the 'lowest amount.'
- Charlotte: we'd analyze what points are kids are missing – we need to reteach. Is that it? What is our purpose? change self? students?
- [notes missing here but we began to talk about resistant teachers in the groups, and how to handle them. We also talked briefly about tradeoffs when groups are working on something in common (e.g., common assessments), or related inquiry under an umbrella focus, or completely independent inquiry which could empower some teachers who resist collaboration]
- Sherelle: our CTI is 5<sup>th</sup>, 6<sup>th</sup>, 7<sup>th</sup>, 8<sup>th</sup> so we're not focused on common learning goals – we all teach different content so we can't give similar assessments. So often we listen to teachers reflecting on their own teaching, without knowing much about their teaching.
  - Charlotte: have you ever videotaped one another and watched tape?
  - Sherelle: no we don't share tape
  - Michele: you could.
  - Sherelle: We didn't think of that until Aki was discussing lesson study; interesting idea, but 2 (of the 4) teachers wouldn't be willing
  - Charlotte: could start with you, but it's tough with people who don't participate fully.
  - Ray feels there are about half of his group haven't gotten onto the PLC/CTI bandwagon, because they feel their teaching is fine.
  - Sherelle: they've never seen the power of this process.

- Charlotte [returning to the guiding question for our table]: so what are teachers' perceptions? Is it that they don't know the power of the data, what types of data, not knowing how to collect and interpret? My group needs help from an assessment writer who can create tasks that elicit what we want from the kids. Maybe Minstrell's approach, but we need m-c items too, and the items we've developed feel trite.
  - Maryl: There are resources on m-c items, but it's always a dilemma about sharing resources from the outside – when to offer them? how to offer them so they don't undermine the inquiry? [we were also discussing the potato peeler!]
- Ray and not sure the PLC members would take it to the next phase; blocked by their understanding of teaching and learning – kids learn or not, render a verdict, end of discussion.
- Maryl asking about whether groups are all doing the same thing; could do an umbrella question, but separate inquiry. Like projects within the group; Ray and a colleague identified some lower achieving students to see if with some additional instruction, these kids can move forward. Ray conferenced with the kids while other kids had scaffolded worksheets; modest improvement for these students, and shared with group, and others 'that's nice.' Ray was trying to model inquiry process for professionals, and he wants input but not necessarily getting that.
- Michele: may need a critical mass in the CTI group;
- Maryl discusses collectives. Charlotte – my PLC hasn't functioned well, job-shares, one person ignores the group and sets up lab, etc. Why aren't we pushing forward if we know what the process is like. So many factors, highly experienced teacher (social status) is the tacit leader, and she's not interested in PCL and open conversation (she sets up her labs) – she just wants to use her assessments and rubric, and not change, didn't feel ok to have a deeper conversation. Michele: Ts are masters of their own realm, if you don't have an outside facilitator, it's tough for teachers within groups to question, push against the norms.
- Ray is the leader, and Ts will bring scored student work and say, "Ray, I have your data." Very frustrating when it's supposed to be a collaboration.
- Charlotte: there must be a continuum of where we teachers see data as important, CTIs as important. If someone is resistant, we don't know much about why people are resistant.
- Michele: is it that teachers don't think of themselves as needing to learn anything?
- Charlotte: Ts were good students generally in their K-16 years, and they come into teaching, and they don't see why they need to teach and assess any differently than they were taught and assessed; so if a student is not doing well, it must be the student's fault; also, 'science is for smart kids anyway.'
- Maryl: That pattern is less so for elementary than secondary, because elementary multiple subject, so everyone usually struggled with something in their schooling.
- Charlotte: another issue – most Ts did well independently K-16, so 'why do I need support of the group when I'm fine on my own?'
- Sherelle: another issue, Ts say 'this is my job 8-3:30' Teachers have a college degree in a discipline and a secondary credential, have the view that they have

knowledge and will dispense it 8-3:30. Also the org. of schools does not require collaboration. Well, teams have been around awhile in some middle and high schools, but they're usually cross-discipline teams that focus on students; teams like those can help (Charlotte misses them as opportunities to identify kids who are struggling), but they may also gang up on students who are misbehaving. Or, another model, they may distribute the work of the team and not collaborate.

- How do we get inservice teachers to change? Put out tempting ideas; create practices that integrate ideas and practices of ALL participants even if discrepant so people voice their views and reflect on them.
- CTIs should include both very experienced and new teachers;
- Protocols – everyone has used, but Ts may resist and say they're silly.
- Sherelle: And usually the facilitator introduces the idea of the protocol, and runs the protocol. Not a good dynamic - facilitators get pushed outside the group – puts you in bad position, and you don't feel you're a part.
- Charlotte: what can schools do to facilitate the facilitators? Rotating facilitation doesn't work if Ts don't buy into it.
- What are some possible entry points to engage the more resistant teachers? Maybe love of students, love of learning, social obligation, ongoing training and outside facilitation (PRISM provided that) (this would help with people coming and going all the time). We don't know what the factors are that impede people.
- CFGs are held people's homes to separate the institution from the work of the group. Maybe CTIs could meet in homes or coffee houses.