

and their disposition toward teaching. Seemingly distinct features of “good teaching” fell under these broader categories:

Knowledge of content

- Sharing personal enthusiasm for the content and learning
- Engaging all students in the content

Pedagogy

- Personalizing and adapting instruction
- Engaging students in learning
- Challenging students to work hard and think critically
- Using a host of pedagogical “best practices”

Disposition toward teaching

- Caring for students
- Communicating with students and their families
- Collaborating with colleagues
- Reflecting on teaching practice

As my survey respondents included teachers and non-teachers, I saw distinctions in how the different groups perceived “good teaching.” Having the voices of teachers, former teachers, and others involved in education allowed me to unpack nuances of teaching that may not have arisen from a predominantly non-teaching audience.

Knowledge of Content

Content is an important aspect of teaching. Nearly half of all respondents (46 of 98 or 47%) mentioned something about content. Comments related to content included ideas about teachers engaging students in content, making content relevant and exciting, breaking down concepts to make them accessible, exhibiting passion about their field, and demonstrating deep knowledge. Non-teachers were somewhat more likely to mention content in their responses (59%, or 10 of 17). Non-teachers were also most likely to specifically mention teachers’ disposition toward their content, such as, “A ‘good teacher’ projects enthusiasm and a love for the subject being taught.”

When I discuss the importance of content knowledge with my teaching colleagues both in and outside of my own school, we all agree that understanding and loving the subject one teaches is incredibly important, but it’s not enough. Genuinely

loving the content and finding it fascinating in its own right is not enough to be able to teach the content well. As a teacher, I must find a way to take the content and my love for it and make it accessible to my students.

My work with the Knowles Science Teaching Foundation (KSTF) has encouraged me to take a broader view of content knowledge, where pedagogical content knowledge encompasses many different facets including horizontal content knowledge (what they are doing in other classes), vertical alignment (where they are coming from and where they are heading), common mis- or pre-conceptions, and knowledge of the curriculum. As KSTF Senior Program Officer Jennifer Mossgrove summarized in her blog post, “Teaching requires making a multitude of decisions—both in the moment and over time—that require an understanding of the discipline and content, beyond just getting the ‘right’ answer” (Mossgrove, 2014).

In the survey results, non-teachers focused on a teacher’s ability to explain content so that students can understand; for example: “The person can explain the topic so that the learners understand and retain the information.” Another non-teacher replied, “[A good teacher is] knowledgeable about the subject being taught, [and possesses the] ability to effectively communicate said knowledge to students.” These types of statements seem to indicate that someone who knows the content but cannot explain it would not be a good teacher.

Teachers and non-teachers alike agree that it takes more than just knowing the right answer to be a good teacher, but how is the ability to communicate information effectively developed in teachers? There are currently many accelerated/alternative teacher certification programs that only require a bachelor’s degree in the subject area being taught, which suggest that anyone can teach if they just know all the facts. Even teachers who go through traditional certification programs are not necessarily supported after they are licensed to systematically develop this content knowledge further unless they take it upon themselves, often paying out of pocket, to enroll in professional development that goes beyond content and into pedagogical practices.

Pedagogy

Pedagogy is the method and practices of teaching. This term was explicitly brought up by only teachers, although all groups of respondents had some aspects of pedagogy implicit in their responses. There appears to be a general understanding that *how* a teacher teaches will affect how effective that teacher is, but teachers and former teachers have the vocabulary and experience to flesh out this idea. Non-teachers may be unaware of the complex interplay between content and pedagogy.

The main pedagogical practice mentioned was personalizing instruction and adapting to student needs. Thirty-six of 98 (37%) responses included comments along the following lines, “[A good teacher is] someone that is able to adjust to the needs of the students.” This idea was most prevalent among former teachers (six of 11 responses, 55%) and non-teachers (eight of 17 responses, 47%), and was less prevalent among current teachers (18 of 56 responses, 32%) and other educational professionals (four of 14 responses, 29%). This may be the difference in the perspective of a learner, or the person who is receiving the services of teaching, versus the perspective of the teacher. Many public school teachers don’t have the freedom to take the long view, as described by one respondent (who is a teacher at a private school and acknowledged that their context provided a lot of latitude in this respect):

You have to meet every single one of your students at their individual starting points, and move all of them as far along their own learning trajectories as you possibly can. . . . I think it’s incredibly helpful to take an extremely long view when it comes to educating your charges, because that helps you get over the tyranny of right now. If your goal is just moving them forward as far as they can get, hopefully it makes it easier for you to let go of some things you (and the full resources at your command) can’t seem to help them get.

Although many teachers I know would agree that meeting each student where they are and moving them along individually would be ideal, many public school teachers find this to be very far from reality. Teachers in America spend about

39% more time with students than those in other countries, although the number of hours worked is similar, meaning that other countries provide lower teaching loads and build more time for planning and collaborating into the school day (Walker, 2016). However, many non-teachers have the following expectation, “A good teacher recognizes when a student is struggling and puts forth extra effort for one-on-one time to help them understand.” Additionally,

A good teacher is one who is able to explain and demonstrate concepts in a variety of ways for a variety of different learners and learning styles. A good teacher is a good learner—they learn how their student(s) learn—and modify their teaching accordingly.

Another teacher responded similarly, “A ‘good teacher’ is someone that is able to adjust to the needs of the students and make the material accessible to them while still challenging them to improve.”

As a teacher, I do my best to help my struggling students and arrange for one-on-one time with them, but it is challenging as there is limited time during the school day for this kind of individualized instruction. I wonder how we can expect teachers, who may have 30-40 students in each class (and a total of 150-200 students on their rosters) to be able to give individual, personalized support to each student, even if we recognize that such support is the best for the learners? With all of the demands on teachers these days (particularly those of us who work in public schools), how can we better support teachers to be able to truly support *all* of their students?

All groups mentioned engaging students in learning. Most respondents focused on engaging students in content, but current teachers also mentioned engaging students in thinking (6), application of knowledge (6), and skills for learning (6) almost equally with engaging students in content (8). Non-teachers did not mention engaging students in thinking at all and were most focused on engaging students with content.

Are these aspects of student engagement actually distinct, and does any one aspect have priority over the others? Although many responses focused on content, it seems that teachers would not say that engaging students in content is

the most important thing. The Unity & Diversity 2015 Writing Project asked science teachers, “What is the most important thing we can teach our students?” and none of the essayists claimed their content area as the most important thing (Unity & Diversity, 2015). Many teachers I know see their content area as a vehicle for teaching critical thinking, applying knowledge, and other skills for learning that students may use regardless of what they end up doing in life. One teacher responded to my survey, “My highest priority for good teaching is giving students room to think deeply about the content and share that thinking with each other.” Another teacher who mentioned content elaborated that good teaching gets students to think: “I also think that person works really hard to ensure that their students understand material at a deep level. Good teaching gets students to think and to do more than they thought they could.” A former teacher replied, “[A good teacher] teaches not just material, but how to think critically, and also why this is important.” Some of the things we support and inspire students to do may be content related, but often the work goes beyond just the facts.

Although current teachers were the only ones to specifically mention pedagogy, all groups mentioned specific aspects of the classroom that could be linked to pedagogy. Some teachers mentioned specific practices (e.g., constructivist practices), others used the phrase “research-based pedagogy” or “researched practices.” However, non-teachers joined current and former teachers in describing specifics about the classroom that could be linked to specific pedagogical practices such as making the classroom interactive, fun, and discussion-based, and making the content relevant and exciting. Other educational professionals and current teachers also mentioned understanding student thinking, and current teachers also discussed challenging students. A fun and interactive classroom may be what students remember best about a good teacher. One non-teacher responded by recalling their favorite teacher: The best teacher I ever had was passionate about the subject she taught (sociology) and it showed. She is who I think of when I think of “good teaching.” She thought of interactive and fun ways to teach her point. The students were

always actively involved in the discussions. She loved teaching, and it made the students love learning.

However, students may not fully recognize that simply making a classroom fun does not necessarily lead to learning (surely we can also recall fun teachers from whom we didn't actually learn anything).

As one teacher responded,

I think a good teacher is passionate about learning, understands a teacher's role is to provide opportunities for learning, and is a good listener. Learning is how people make sense of their world, and it comes naturally to little children as they explore, investigate, and build. A good teacher nurtures and guides learning by designing diverse activities that lead to further "sense making."

Teachers understand that an engaging classroom is not engaging for the sake of being engaging, but that engagement should lead to further sense-making.

To go from engagement to sense-making, the engaging, interactive, and exploratory activities need to be tied to generating knowledge and understanding what is happening and why (particularly in a science classroom). As a current teacher put it, "In a classroom setting you may show/tell a little (or a lot), but you also give time for students to apply their knowledge in different ways. Giving students the opportunity to apply knowledge makes you a 'good teacher.'"

Teachers are making instructional decisions when they make the classroom interactive, discussion-based, or tied to relevant or exciting topics. These instructional decisions come from pedagogical theories that go back to the beginning of the 20th century with John Dewey (1938). Current educational research also backs up the idea that a learning cycle where students engage with and explore and apply content leads to successful learning. The BSCS 5E instructional cycle that is used in designing many science lessons follows student engagement and exploration with explanations and an elaboration phase to lead to successful learning (Bybee et al., 2006).

Dispositions

Tying together content knowledge and pedagogy are dispositions toward teaching as a practice. Content knowledge alone and pedagogy alone are not enough to be a good teacher because teaching is not a stagnant profession and every year is different. Current and former teachers were able to bring to light many of the more subtle nuances of teaching that are involved in the dispositions that teachers may have toward their teaching practice.

Current and former teachers focused on caring for students. While every category of respondents had some mention about caring for students (this included inspiring students to be their best, nurturing students, being compassionate and listening to students, connecting with students, being respectful, being patient, and making students feel comfortable and safe), 64% of current teachers (36 of 56) and 72% of former teachers (eight of 11) specifically mentioned something about caring for students. As one current teacher put it, [A good teacher] cares about their students as people and treats them as people. And ideally communicates that care to students in an appropriate and thoughtful daily way . . . it is both really, really crucial, and also not nearly enough on its own. We know too much as a profession about what helps students that good intentions are not enough.

Teachers recognize that knowing who their students are impacts the way that they teach and their classroom. This may be implicit in the idea of personalizing and adapting instruction mentioned earlier: how can a teacher personalize instruction for students that they do not know? As one teacher put it, “A good teacher is one that values student voice and cares for students as whole people with unique experiences and perspectives. A good teacher works to understand their students academically and find ways push their thinking.”

However, non-teachers were more likely to mention communicating with students and parents. Seven of 17 non-teachers (41%) mentioned communication with students and parents. Aspects of this category included having good people skills and communication skills and being approachable and accessible. Former

teachers also mentioned communication skills and approachability; however, current teachers did not mention any of these aspects of teaching. As one non-teacher phrased it, “[A good teacher is] a patient person that is very communicative with parents and can easily make necessary adjustments to make sure that my child learns and excels.” Non-teaching stakeholders in education (students, parents) understandably want teachers to be communicative about how their students are doing and are responsive to students’ needs. In my opinion, communicating with students and parents is another way of caring for students and personalizing or adapting instruction, because a teacher who cares about student success will communicate concerns about a student with that student and their family. And communication with students and parents often leads to interventions such as individualized help: for example, meeting one-on-one outside of class.

Current and former teachers were the only groups to mention specific attitudes and dispositions towards colleagues and the school setting. While only a total of seven respondents mentioned any of these specifics (listening to colleagues, collaborating, humility, longevity), all of those responses were from current or former teachers. As a current teacher put it, “[A good teacher is] someone who shares ideas and successes with colleagues and who is able to listen to ideas that others share.” This counters the idea that teaching happens in isolation and that a good teacher can exist on their own with no help from others. I had the pleasure this summer of meeting the teachers profiled in the book *Mission High* (Rizga, 2015). The teacher and student profiles in this book highlight many, if not all, of the aspects of good teaching that came out of my survey. When listening to a panel of the teachers, someone mentioned that the support staff at the school were not included in the picture. Often stories of good teaching are unfortunately missing some of the nuances of the story because it would take too long to tell otherwise. But we must understand the supports required for good teaching to take place, otherwise, we are holding teachers to a standard that is impossible to achieve alone.

Current and former teachers specifically mentioned attitudes toward teaching

practice. Responses that mentioned reflecting and being thoughtful about teaching came primarily from current and former teachers. Additionally, only current and former teachers mentioned dedication and hard work—other educational professionals and non-teachers did not mention this at all. One current teacher acknowledged that there was a lot that went into good teaching: This is a lot, but: I think of someone who is not necessarily perfect but who does a lot for their students: someone who knows their students as people and learners; someone who strives, effectively, to allow students to engage with, be challenged by, and deeply learn material; someone who uses systems and teaching style that works for them and their students; someone who works to enact their teaching philosophy every day; someone who demonstrates their love for students and learning by crafting a safe and rigorous (and fun!) intellectual community. Perhaps it is only those of us in the trenches who can fully appreciate how much work and dedication it takes for good teaching.

Teachers are the ones who recognized the role of reflection and collaboration on improving teaching. A current teacher differentiated between good teaching and being a good teacher:

Those two phrases actually inspire different things to me. Good teaching is . . . effective instruction in the classroom. . . . the ability to inspire kids to do the bulk of the thinking about the subject matter . . . The person who is a good teacher, though, may or may not actually be an effective educator, or might not be one yet. But they care deeply about their students, they're working to improve their instruction, and they want to be effective. Basically, I see "the person who is a good teacher" as also including the people who someday will become effective educators, but aren't quite there yet.

I found the above response particularly interesting because it acknowledged that teachers have the potential to become good teachers, even if they may not be effective educators yet. Training and mentorship are vital in developing teachers, both in improving teachers and keeping them in the profession (Caneva, 2016). Other countries spend much more time on teacher training (NCSL, 2016); what would it look like for teaching and learning in America if we also spent more time

on training teachers, both before and after teachers have their own classroom? I am personally convinced that the mentorship and training that I received informally in my school setting and more formally through KSTF have fast-tracked my development as a teacher. Those outside the teaching profession, however, may assume that good teaching is a fixed attribute—you're either a good teacher or you aren't. This assumption seems to be more prevalent in the United States than in other countries with the result that American teachers are given less time during the school day to improve their practice. As Jon Synder, a Stanford researcher said, "I think there's a different notion in Singapore, and in Finland, and in other places where they think that teaching is actually complex, difficult work, cognitively engaging and challenging. [This is] as opposed to, 'Well, you know, anyone can teach. We just tell 'em the right words to use and the right way to do it . . . and it will be done.' But it's not the way it works" (Walker, 2016).

In the long run, the features of good teaching that came from my simple survey seem unsustainable by a single teacher working in isolation but require the support of colleagues, administrators, parents, and policy makers. And good teaching is something that can be developed in a teacher, rather than something that a teacher either has or doesn't.

The results of my survey were much richer and deeper than I had anticipated—I confess, I didn't know what I would get from this. These responses provide a complex and nuanced picture of teaching, rather than a simplistic vision that would come from just asking one or two people. Everyone has something to say about what makes a good teacher because we have all experienced many different teachers over the course of our education. In the long run, the features of good

teaching that came from my simple survey seem unsustainable by a single teacher working in isolation but require the support of colleagues, administrators, parents, and policy makers. And good teaching is something that can be developed in a teacher, rather than something that a teacher either has or doesn't. Having the voices of so many teachers and former teachers in my survey helped to unearth many different facets of teaching, and the results of the survey in general indicate the high expectations that we have of our teachers. In light of these high expectations, I am convinced of the importance of supporting teachers in *improving*. Any one teacher would need continuous support to develop all of these aspects of a good teacher, and research has shown that there is no one single professional development model that works for all teachers (The New Teacher Project, 2015). What would it look like, if, with this complex picture of good teaching, we supported teachers in achieving it instead of looking to just get rid of "bad teachers" and in the meantime burn out those who are considered "good teachers"?

I'm not going to lie, I'm still tired this year. I'm still doing most of the things I was doing last year (although I was wiser about not saying "yes" to many *more* commitments this year). But when I reflect upon the results of this survey, I'm reminded that it's okay to not be that "perfect" teacher yet (and in reality, when is anyone a truly perfect teacher?). I'm reminded to depend on my colleagues to help me reflect on and improve my own teaching practice. I don't have a simple solution for anyone who also feels exhausted by the demands of teaching, but teaching is a journey for both the teacher and the learner. We as teachers should neither beat ourselves down nor become complacent, but take the long view for both ourselves and the students entrusted into our care.

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