

## **Chapter 4 – Results**

### **Student Teacher #5 – Derek”**

#### **Background**

Derek has a less “traditional” background than most of his peers. He came back to get a teaching degree after many years in research. He earned a liberal arts undergraduate degree from an Ivy League school, as well as Bachelor’s and Master’s degrees in Physics. He also had teaching experience, training people to take standardized tests such as the MCAT. He had good experiences teaching high school students in this environment, and decided to begin a career teaching science full-time. He was pursuing teacher certification in Physics.

#### **School Environment**

Derek’s host school once had a bad reputation for poor teachers and unruly students. Some years before Derek’s arrival, however, a new principal replaced many teachers and placed a number of students in alternative learning centers. The situation had improved as a result, but Derek still classified the atmosphere of the school as “grim.” Although he witnessed no violence problems himself, the school had to be evacuated many times during his student teaching period because of bomb threats. He found many classrooms to be physically unpleasant, and cannot imagine an adult staying for long in one by choice. He imagined that the atmosphere of the school would come as quite a shock to someone visiting from a corporate or university setting. He did not find the campus physically attractive either, characterizing the surroundings as “industrial, bleak, and sterile.”

Derek saw class as more important than race at his school. Class differences not only caused moderate divisions within the school itself, but also separated his host school from other, more affluent schools. He noted that a school not too far from the host school

had much higher standards for students and teachers, because the student population was of a generally higher social class. He felt “repulsed” by the prospect of the return of “separate but (un)equal” schools. While he acknowledged that there were many good people trying to make a difference, he was disturbed by the apparent lack of progress. He wondered aloud, “How can the privileged classes in this country allow education to be such a cynical joke for the lower classes?” He considered himself an “old radical,” but confessed he no longer believed that the upper classes were intentionally trying to sabotage education for the lower classes. Rather, he proposed that many in the upper classes might not realize how bad education is for lower socio-economic groups, or they might believe that a very low level of action is the appropriate policy. He was also not willing to rule out simple apathy. In all, he found it surprising that the reality of education did not match the rhetoric about equal education he heard in his preservice classes, and from society at large.

Derek had little contact with administrators and other teachers during his time at his host school. He did not find the teachers’ office facilities to be conducive to meaningful interaction. The principal that had instituted reforms in the past had moved on, and Derek considered the interim principal that was in place during his time there to be a “non-factor” in his teaching. He had a few good conversations with vice-principals and counselors, and many very good interactions with the school librarian. In fact, the librarian was about the only individual at the school that Derek had a considerable amount of respect for. He considered the librarian to be a well-educated person who made the library a pleasant and productive environment. Derek enjoyed the opportunity to work with people like the librarian, who were legitimately trying to make a difference in students’ lives.

Overall, however, Derek got the impression that most of the faculty and staff at his host school were “not very smart or knowledgeable,” and were not trying very hard to help students. He sensed a disturbing attitude among students and faculty that students were just going to school to “get a piece of paper.” He did not feel that students were

being pushed to work very hard. He proposed that many faculty might have believed that the school's problems were too big to deal with, and would just "go through the motions." He considered most of the people at his school to be "frivolous and highly negative," and enjoyed the rare opportunity to work with productive people like the librarian.

Derek was not pleased with the poor classroom facilities at his host school. He classified the physics equipment as "mediocre," and wondered how he could hope to provide students with meaningful learning experiences with substandard equipment. He realized that lecture alone would not be sufficient to help students understand physics. Derek also felt that space was important in a classroom: space to display information on boards and projection screens, space for students to move around, and space for students to perform experiments. He found such space lacking at his host school. He was at first opposed to having a great number of distracting materials on the walls of a classroom, but eventually came to the conclusion that holding student attention for an entire class period is virtually impossible, and distractions might as well be informative.

Derek's host school had what he characterized as a "majority of minorities," with few white or Asian-American students. He found the general student attitude to be "overwhelmingly non-academic," with students more focused on socializing. Many of the students were by their own admission not college bound, and in his view had poor academic skills (especially mathematics skills) and were passive in their attitudes toward learning. He got the feeling from interacting with the students that about half of the students were "just barely willing to be there," another quarter enjoyed school only occasionally, and the last quarter seemed to enjoy being around their friends, and "didn't mind being taught." It seemed to him that many of the students had bad relationships with their parents, and that furthermore those parents believed that their educational responsibilities ended when they dropped their children off at school. He briefly wondered how parents could let their children go to a school like his host school, but after seeing how little some parents care, he does not wonder so much.

By the end of his student teaching, Derek went so far as to divide students into three categories. He classified one group of students as hard working and eager to make the most of their education. Such students were frequently inquisitive, and Derek enjoyed working with them, but unfortunately they were the smallest group. The second group of students struggled with their studies, due to skill deficits or attitude problems. He felt that these students could make academic progress, but only after significant effort from both teacher and student. Often there were too many students and too little time for him to really help these students. However, he expected such challenges, and found it to be very rewarding if such students improved.

Derek called the third group “Unteachables,” students who are able to learn, but are largely unwilling to be taught. The problem was one of attitude instead of ability: Derek found their negativity very discouraging. These students were generally the unhappiest in Derek’s experience, and the most likely to cause problems. According to Derek, only one or two of students in the third category could severely impair the learning process for all. Yet he found that the majority of students in his classes were in this category. Even his honors classes had about a quarter of the students unwilling to work hard to learn. Derek reluctantly resigned himself to the fact that these students were determined not to benefit from their education, and that struggling with them would waste the time of students that did want to learn. He had thus been able to work out a “truce” with some of the problem students, and felt that it was perhaps better for them to be removed from the class entirely.

### **A Commitment to Teaching**

Once he made the decision to pursue a teaching certificate, Derek tried to continue to do scientific research to earn money, but began to feel his commitment to research waning. He made the decision to quit research and to completely dedicate himself to teaching. He found that he could immerse himself in teaching in a way he could never

quite manage with research. And he also found such immersion was necessary. He knew that being a teacher would be very time-consuming – sadly, he admitted, for things that had little to do with academics – so he cleared out other aspects of his life to devote himself full-time to his student teaching.

Derek’s previous experience with teaching and training made him very aware of the rewards of teaching, and these rewards fueled his desire to become a teacher. He enjoyed interacting with students in a variety of situations, from one-on-one tutoring to large group teaching, as well as the good feeling of helping someone understand a difficult concept. He found it encouraging when students would show curiosity and enthusiasm. Although he did not think that keeping students entertained was a primary function of a teacher, he confessed that he enjoyed “entertaining a room” while teaching. Frivolity aside, he looked ahead most of all to the “moral satisfaction” of knowing that he was doing a worthwhile job that touches lives.

Because he came into student teaching with a fair amount of teaching experience, he initially had very few questions about how to teach; his concerns more frequently revolved around how to capture students’ attention and make science relevant to them. He felt that the two were intimately connected: showing students how science connected to their lives was to Derek a key to keeping students motivated and on-task. While he acknowledged that a zero-distraction classroom environment was impossible, he believed that the instructor should work to minimize distractions. He was resigned to the fact that every student in his class was not always going to be paying attention, but should try to understand the reasons why some students may not be paying full attention. He felt that it was necessary to use a variety of teaching styles within a class period, because lecture alone could not suffice to hold student attention.

In addition to motivating students, a teacher must be skilled at self-motivation, according to Derek. Because of the intense time demands teachers face, they must be highly motivated to continuously strive to improve their teaching. Derek pointed out that

students are certainly not going to berate a teacher for being too motivated, and may even be motivated in turn by a teacher willing to do the extra things that will make instruction better. Derek drew his personal motivation from the feeling that his teaching would affect the lives of many people who were depending on him.

While Derek felt that capturing and holding students' attention was the teacher's most important task, he ranked the ability to organize information in a meaningful, clear succession very high as well. In his experience, many physics professors lacked these presentation skills. To Derek, these instructors seemed to believe that teaching consisted of merely "showing someone how something works." He believed that information must be accompanied by well-organized concrete examples and hands-on-experiences, to assist students in assimilating information. The teacher is challenged to keep students active in a productive manner. Additionally, a student may need to have a concept explained from three or four different perspectives before achieving understanding.

Keeping students mentally active was a particular challenge. Derek felt that very few students possessed the non-concrete thinking skills so vital to understanding physics. To help develop these skills, Derek attempted to implement an active questioning technique. Derek's ideal classroom interaction was like a very thoughtful conversation, with questions exchanged between teacher and students, and between students as well. Derek felt very strongly that if a teacher did not enjoy this conversation, then he or she should not be in the profession.

Derek realized that students would not know the answer to every question that he posed. He even saw this as a healthy teaching atmosphere: he claimed that students were not being sufficiently challenged if they could answer every question posed to them. Derek did not mind when students responded to a question with "I don't know," so long as it was not expected to be a cover for intellectual laziness:

I think “I don’t know” should be an acceptable answer, but I also think that if a student says, “I don’t know” the teacher should then say, “Yeah, I bet you do. You just don’t know you know,” and feed them little bits until they put it together.

It’s hard to do, until you’ve gotten practice at it. It’s hard to learn how to ask good questions of the students. It’s a big skill asking the right questions, and then when a student doesn’t get it, breaking it down into small questions, or re-phrasing the questions or drawing out things that they know and leading them to it.

Derek felt that this system of “leading students along a path from things they already know to some new things by way of things they need to find out” has multiple benefits. First, it demonstrates value for the students’ thought processes while helping to develop those processes. It gives students important experience with “thinking on the spot.” Calling on and questioning a variety of students helps a teacher stay at the class’s pace. Derek also found it helpful to hear students articulate answers, and therefore get misconceptions out in the open for all to see. Derek believed that students should be allowed to make mistakes, and should be given the time to work around those mistakes. He did realize, however, that time constraints limited his ability to use this technique as much as he would have liked. Sadly, as detailed below, interference from his host teacher also limited his ability to use an active questioning technique.

Derek always wanted to maintain a positive classroom atmosphere. He believed that teachers and students should be able to joke with each other a little bit, and he wished that he could convey more of his enjoyment of science to his students. He has been amazed that some teachers can appear outwardly angry and unhappy, and yet still be effective in some aspect of teaching:

Now, I have seen a couple of good teachers who seem angry all the time but are extremely good teachers, and they even appear to have a good relationship with their students. It may be that these are just people who have a certain facial cast or a certain tone of voice that they seem very angry.

He cited the specific example of one teacher he observed, whom he dubbed “the Harpy” who “ran the Tightest Ship in the British Navy.” The teacher would frequently scream at her students, and Derek heard that many students transferred out of her class because they could not tolerate the hostile environment, and chalked it up to desperation arising from the shortage of science teachers. He conceded that she was an effective science teacher, but saw this as more of an indictment of other science teachers than a compliment to this one. He characterized her as an effective imparter of information, which to Derek was only a single facet of the teacher’s job. For his part, he learned very little from observing this teacher: he noted gaps in her content knowledge, and the atmosphere was already so oppressive that he saw no instances of active classroom management.

While Derek did not feel that “coddling” students was part of a teacher’s duties, he did feel it was important for a teacher to demonstrate caring for students. Derek said that a caring instructor wants to give students the maximum possible benefit of the time they spend with the teacher. He asserted that teachers should want to know at least a little about their students, and should want things to go well for them. The caring teacher works for the students’ benefit, not the teacher’s. Derek believed that a teacher who does not begin with a caring attitude will take shortcuts and will not attempt to gauge the level of student understanding and adjust to it:

Because if you don’t go in with that attitude, then you’ll cut corners and you’ll take the easy way out and you won’t prepare a variety of activities and you won’t think about all the things you need to think about before



and during teaching. And you won't put your head down at the students' level and think about the material as though you were seeing it for the first time. You won't make as much of an effort. And if you don't make an effort, your results won't be as good.

Without a caring attitude, Derek felt that a teacher would not be motivated to constantly adapt his or her teaching, and would run the risk of stagnation. In turn, students would not be motivated to work for a teacher that obviously does not care about them. Derek characterized a caring attitude as "necessary, but not sufficient" to keep students motivated to learn.

Derek noted that an important component of caring is concern about a student's emotional state, but he felt it should not be the major concern of a teacher, since a teacher is not a student's parent. Teachers should not be expected to "mediate" student crises, according to Derek, but rather should help the student find other sources of help. In one instance, he referred a student who was having suicidal thoughts to a counselor. He was moved by the student's distress, and could sympathize, since he characterized his own high school experience as "less than pleasant." He was saddened that students like this one could have no academic or discipline problems and still be deeply troubled. He quickly realized that he could do little for the student, because of his own personality and his transient position in the school. He regretted that all he could do for her in the end was to shake her hand and refer her to a counselor. He was relieved when the counselor turned out to be a competent, caring professional who could legitimately help the student.

When asked about the best piece of advice he had received about teaching, Derek said that he was told to cultivate patience. Patience helps a teacher to adapt to the students' needs and work at the students' pace. A patient teacher remembers that teaching is a step-by-step process, and that students may need to make many tries from many perspectives to achieve understanding. A patient attitude can also help a teacher stay sane in the face of many challenges:

There are going to be a lot of crazy demands on your time, a lot of impossible things expected of you, etc. So just being patient, sort of with yourself or with the system, as well as being patient as far as the pace of instruction, or with the students, will make you both calmer and more effective.

### **Balancing Independence and Focus**

Derek felt that one of the greatest challenges he faced as a teacher was in controlling the pace of the class. He expressed the opinion that since class time is inherently limited, it also inherently has value. Accordingly, he found large blocks of wasted class time to be “sad.” He observed one instructor that appeared to him to spend large amounts of class time unproductively; even if this teacher was not actively lecturing or guiding discussion, Derek felt the teacher could have at least spent the time working with individual students, instead of just letting students socialize. At the same time, Derek did realize that it was sometimes necessary to have brief periods of non-productive time in class in order to maintain good relationships with students. So he viewed the wise use of class time to be a key issue in teaching, and saw the essence of the issue to be a balance between letting students be independent and keeping class time focused.

Derek felt that a good class relationship would allow the students a certain amount of independence. However, he was dubious about the possibilities for students to learn independently during actual class time, when potential distractions would abound. He went so far as to characterize the phrase “independent study in class” as an oxymoron. He would have preferred to give students open-ended, thought-intensive homework assignments. Unfortunately, he encountered considerable resistance to this idea, both from unmotivated students and from his host teacher.

He had read in the research that giving students independence in their learning is a long building process that would likely not yield results early, but would pay off in the long run with increased student motivation and achievement. He expressed concern that such a process would become a protracted struggle to develop independence and maturity in students. He experimented a small amount with giving students independence, typically in the form of extra credit projects, but saw no results in an admittedly short time period.

While he did not feel that every second of class time should be rigidly controlled, Derek did want to make sure that time in his class was focused and active. This would leave little time for independent study in class. He believed that a teacher could actually be an obstacle to learning if he or she does not keep class discussion from wandering too far afield. He is also dubious about overuse of open-ended discussion, because such sessions can quickly become unfocused. He is even cautious about discovery learning, since the senses can be deceptive, and students can go down erroneous paths if the instructor is not vigilant. According to Derek, a good teacher is challenged to always pay attention to and adjust the pace of a class, and to frequently summarizing with students the main ideas of the course to keep things on track.

Derek has found that some students, if given the chance, will take a line of questioning very far from the original topic, either out of genuine curiosity, or a desire to slow the class down. In such cases, he tried to gently guide the class discussion back to the topic at hand. One student in particular would constantly ask him questions, often questions that would take the class far from the subject at hand. This student seemed happy to get any kind of answer at all to his questions, however, even if the answer was a challenge to figure it out on his own, or a statement that that topic was for later discussion. Other students were less patient when told that their questions would be answered as part of the natural evolution of the subject matter:

And that frustrated one or two students; they wanted everything right away. Um, [another instructor] calls it the “TV twitch.” They want everything right now. If you’re not talking about what they want you to talk about right now, then they change the channel – they want you to change the channel. They want to sort of ask you a question and have you switch to that information right then.

As an instructor and physics content “expert,” Derek could see how all the ideas fit together and why some subjects need to be discussed before others. He found that many students did not want to accept that they would have to work through lower-level concepts to get to more complex ideas. They wanted to just be given facts, without the background to truly achieve understanding. He wound up trying to placate these students with brief digressions, intending to give more details at the appropriate time, but would have appreciated more guidance from his preservice classes and host teacher in how to deal with such situations.

### **Two Major Problems: Curriculum and Content Knowledge**

Derek proposed that the two biggest problems facing secondary science instruction, that could be directly addressed by teachers and teacher educators, were a flawed high school science curriculum, and the poor content knowledge of most high school teachers. The curriculum problems left him very displeased with the public school system:

And one of the things I’m frustrated about right now is, I don’t think – in my lofty wisdom after two months’ of experience in the school system – um, after, given my limited experience, I still don’t think that what’s being taught is appropriate for the goals and the needs of most students. And of course the way it’s being taught is an utter farce in many cases, just totally ineffective.

Defining these “goals and needs” was very difficult for Derek to manage. He finally concluded that each student’s goals would be determined by a combination of the student, the parents, and the school itself. These goals would determine what the student “needs” to learn in a science class. Derek felt, however, that the current secondary school curriculum tries too hard to be “one size fits all,” focusing too much on preparing students for college science studies. He feared that this focus on college preparation was a drain on student motivation:

...teaching them that academic, or pre-academic, uh, course material that isn’t especially integrated with the... with the other course, or isn’t, uh...isn’t sort of real-world, isn’t sort of aimed at giving the students knowledge that will be useful in their daily lives. I think that’s a big mistake; I think it’s a waste of their time. I think it’s why most students are so bored with science. Uh, I think the unspoken goal of most science classes is to preview what, uh, what is taught in college.

Derek saw very little actual commitment in the high school science curriculum to developing working knowledge and integrated knowledge over mere academic knowledge. He elaborated with a statement that some might find surprising coming from a science instructor: “... as a physics teacher I don’t think that physics is that darned important for kiddos to study.”

He felt that biology instruction came the closest of all the sciences to giving students information that they could use, and material that they could be interested in. While he nominally agreed with the statement “chemistry is everywhere,” he believed that knowledge of principles of chemistry had very few applications in everyday life. Regarding his own discipline, he felt that the “real world” was too complex for the simplistic version of physics taught at the high school level to be very useful to most students:

The big deals that you can teach really well in the first six months or a year of physics are things like the Newtonian rather than Aristotelian concept of force and motion. But, the funny thing is, it's counter-intuitive, the Newtonian, because in our experience things do fall down, or things do stop. So, I might suggest that you study much simpler physics, such as conservation of energy and force laws and work and whatnot, and do it in a hands-on manner.

Derek proposed that a better strategy for teaching high school science and preparing students for college would involve working on thinking skills and covering a smaller number of topics in greater depth. Also, he felt that a class involving applications of physical principles to technology could be more useful to students. If taught properly, there would be more potential for genuine learning in such classes, as opposed to rote learning. As things stood, he did not feel that he could in good conscience teach science in the public schools in a manner consistent with the current curriculum, which he saw as valueless. Rather, he looked forward to teaching at a private school, where he might have more latitude in creating a more useful curriculum.

Compounding the problem of an inappropriate curriculum in Derek's mind was a lack of instructors with knowledge of that curriculum. Derek felt that a teacher's content knowledge should exceed the content of the text; he even went so far as to propose that an instructor who could not add to the material in the text should not be teaching. Yet in his view, many teachers that he had encountered as a student and a student teacher fell short of that ideal. According to Derek, poor content knowledge can have a variety of detrimental effects in the classroom:

Now, I still think that one of the biggest problems you have in the sciences is that you've got a lot of people teaching science who don't know very

much about the particular subject they're teaching. Uh, and that affects their confidence. That affects their freedom to use different styles.

Derek was skeptical of general or composite teacher certification. He felt it was simply too difficult to be adequately proficient in such a large number of topics. While he had no problem with a wide breadth of knowledge, he believed that depth was essential to effective teaching. He was also very dubious about the possibility that teaching skill is independent of content knowledge.

I think it's... certainly not true that somebody who doesn't know physics can teach physics. I mean, there may be cases that I have not yet considered, where just the teaching skill plus, you know, some material slapped on at the last minute; that might be effective in some circumstances. I'm skeptical, uh, but willing to be contradicted.

Derek acknowledged that there is an innate conundrum for science teaching, in that most people with great science content knowledge are not necessarily going to be inclined to pursue a career in teaching. Many find the financial and professional rewards of research too appealing. Others may simply have a personality that is incompatible with being an effective teacher. Nevertheless, Derek proposed that it is essential to get people who know science well involved in teaching science:

So, you know, I do think there's – for the most part people who get into science and engineering are not the same kind of people that get into teaching. Now, I think, y'know that you need to have people who are science people and engineering people teaching science and engineering, because of this, this...this idea that, to teach a subject, all you need to know is how to be a really good teacher and then somebody hands you a book, and you look at it an hour or two before each class, and you can teach anything. Total nonsense.





## **A Poor Match for a Host Teacher**

Derek's student teaching experience was hopelessly marred by a horrible mismatch between himself and his host teacher. Derek's initial assessment of this host teacher was swift and decisive: "I think it took me about a half an hour to realize that he was a total idiot."

That initial impression held firm for the whole period of student teaching. Derek believed that his host teacher was extraordinarily poor, both as teacher in general and as a host teacher. First, Derek saw his host teacher's content knowledge as completely inadequate. The host teacher had a 20-year old degree in agricultural science, and Derek often heard him relay incorrect information to students. In some cases, the host teacher could not do physics problems that he had assigned to students. In what Derek saw as an attempt to cover his poor content knowledge, the host teacher used lecture and worksheets almost exclusively. As a result, students paid little attention.

Derek was also unhappy with what he saw as extreme cynicism from his host teacher. He saw his host teacher as more concerned with looking good politically than with being an effective teacher. The host teacher claimed to care about students, but Derek doubted that claim, since the host teacher continuously took steps to make his own life easier rather than to help students. He did not see the host teacher trying very hard to teach students, or to make them work for grades. Derek felt that many of the students in the physics honors classes lacked the necessary skills and attitude to succeed in that class, but the host teacher let them in, so as not to "make waves." Derek saw the host teacher's attitude fully displayed in a discussion about special needs students:

He told me to my face that all the special ed students pretty much get B's just because no one will squawk. He does have one who's earning and will get an A, but he has a lot who are earning C's and F's who are getting B's. He showed me the IEP's once, and he said, "If I fail the kid, then I

have to explain and demonstrate and prove that I did these every day in class. And I don't do it 100% of the time, and I don't want to get in trouble. So nobody's unhappy if I give the kid a B." So that's why I say he's extremely cynical.

Whenever someone from outside the school would come to talk to the host teacher, it seemed to Derek that the host teacher would tailor his answers to what he expected the person wanted to hear, not necessarily to the truth. This pandering attitude combined with the host teacher's professional incompetence, invoked a strong reaction in Derek:

That just... it just... made me sick after awhile: the constant wrong information, the low levels of thought that he expected of them – it was all, you know, knowledge and regurgitation – and the slow pace just killed me. And then his little cynical compromises to keep his life easy, such as giving B's to all the, uh, all the special ed students, just made me sick.

Derek noted that the host teacher seemed to get along with the students, but for what Derek saw as all the wrong reasons. He saw almost no discipline being enforced by the host teacher, which caused Derek problems when it was his turn to take over the class. Derek felt it is naturally difficult to go from a state of lax discipline to one of stronger discipline, even in the best of circumstances. With his host teacher setting a bad precedent, conditioning students to lack of effort and poor discipline, Derek found himself in an untenable situation:

And so I've gotten a lot of hostility from them, picking up in the student teaching. Also, their past teacher was a doormat who enforced no discipline and didn't ever make them do any work, both the honors and the non-honors sections. So they've been resistant for that as well. So it's been a real struggle the last few weeks student teaching.

As a result of this struggle, Derek's host teacher expressed the opinion that Derek was not learning fast enough, and declared that he was "taking back" his class. The announcement came without warning, and Derek found it very jarring and insulting:

And even if I do end up teaching a few days here and there, we'll do it his way, because in the week and a half he saw me teach, some things went wrong, and he didn't think that I was learning fast enough. In the week and a half, in the 6-7 days of instruction, I wasn't figuring out how to teach the kids, so he jerked the rug out from under me.

This move on the part of the host teacher naturally halted Derek's efforts to try out some of his ideas for teaching, such as the "leading questions" technique described above. Derek went to his supervising professor at the University and requested to be transferred to another host teacher. The request was denied, which greatly angered and confused Derek:

Interviewer: What questions come to your mind almost every day you are teaching?

Derek: Of the student teaching I'm doing right now?

Interviewer: Sure.

Derek: Why can't they get me out of here? This guy is so demonstrably horrible that if anybody saw him, they'd be hard put not to kill him, never mind leave me here.

The situation was an extreme drain on Derek's energy and desire to teach. He often wondered how he could make it through a day of dealing with this host teacher, much less come back for more. He was amazed that such a bad teacher would be allowed to continue teaching, and desperately tried to communicate the dire nature of his situation to others:

I've begged people to come and watch my guy teach: professors, grad students, other student teachers. One other student teacher did come in and watch him teach for an hour and she walked out saying, "I pity the kids and I pity you."

With the mediation of the supervising university professor, Derek was able to reach an accommodation with his host teacher, wherein he agreed to use conservative and traditional teaching methods, and the host teacher would observe and occasionally leave the class entirely to him. Derek felt that he was reduced to simply "going through the motions" to please the host teacher. Although he was not sincere in his behavior towards his host teacher, he felt that either he was able to deceive and appease his host teacher, or the host teacher was at least willing to go along. Derek later regretted this appeasement and expressed strong negative feelings about the whole affair:

I feel like it's been a big waste of my time. It's been frustrating. Um, I'm angry that I wasn't replaced, and I'm amused that [host teacher] bought it completely. Um, he repeatedly described this to several other people as having started in with different mindsets, but now being of the same opinion, and working together in all ways and seeing things that same way. And that's a laugh, because I still disagreed with him; I just wasn't bothering to say anything about it.

After beginning his policy of appeasement, Derek stopped trying to improve his teaching. He had managed to connect with some of the students, but after he started accommodating his host teacher, it was no longer important to him to try and work out problems:

Um, some of them I'm getting to know a little better, but after I started turning myself into a robot, I stopped trying so hard.

All in all, Derek felt that his host teacher provided him with no useful feedback. Few as they were, all of the host teacher's comments seemed to focus on getting Derek to do things the host teacher's way, rather than critiquing what Derek himself was doing. The host teacher's lecture-driven style seemed to be the only acceptable style, and deviation from that was unacceptable. Derek found the advice to be utterly useless and decried what he saw as negligence not only on the part of the host teacher, but on his university supervisors as well:

And in my personal opinion the only way you can teach somebody to teach is to watch them try it again and again and try to give them feedback. And they don't do that. Now, there's a money problem, there's a manpower problem, sure, but nobody is actually watching student teachers teach and giving them feedback, until they hit their host teacher for the student teaching placement. And all the feedback I've gotten from this guy for the first two weeks was "Find some place to put your coffee mug."

From his conversation with other student teachers, Derek had found this limited feedback from host teachers to be endemic. Some host teachers seemed to be unwilling or unable to provide feedback, as was the case with Derek's host teacher. Others seemed to Derek and his fellow student teachers to be reluctant to give constructive criticism, so as not to leave a black mark on a student teacher's record. But since such feedback would only be seen by the student teacher and not by the university professor, Derek claimed such fears were groundless. Derek felt that a lack of early feedback could be detrimental to student teachers, because they may form bad habits that would be difficult to correct later on.

At the end of the semester, Derek's host teacher actually did receive some poor evaluations from the school administration. Derek expressed hope that the school was finally going to take action against what he saw as a horrible teacher. In a strange twist, the host actually went to Derek for reassurance:

As a matter of fact, this guy who I fooled into thinking I was his best friend started telling me all these explicit details. When the principal finally did come and observe him, he got, uh, "Poor" and "Needs Improvement" across the board, and they had a long fight about it. And he kept coming to me sort of for reassurance, um, and to sort of, you know, have a buddy to complain to. And I was like, "Yeah, but I agree with him. You suck." (laughs) So it was...it was... you know, just a sad, bitter, amusing, petty, just awful.

Others noticed the extreme mismatch between Derek and his host teacher. Derek reported that one of his fellow student teachers observed his host teacher, and saw them as different as "night and day." The whole experience with his host teacher left Derek very bitter and disillusioned. He summarized the effects of his host teacher on his professional development with graphic language.

Interviewer: In what ways has he impacted your student teaching experience?

Derek: Like a f---ing meteor.

### **Unfair Evaluation**

On a few occasions during Derek's student teaching, a graduate student working under the supervising professor would come in and observe part of a class that he was teaching. Afterward, the graduate student would give his evaluation of Derek's performance, along with suggestions for improvement. Although he found a few of the

suggestions helpful, Derek did not feel that the evaluations were very useful to him, because the graduate student was either unaware of or unwilling to make allowances for the highly restricted situation that the host teacher placed Derek in. Derek saw this as very unfair:

What's doubly frustrating is, I was evaluated on the same basis as everyone else, which is primarily on inclusion of sort of more modern styles and techniques, even after I explicitly told the professor and my evaluator, a graduate student, that I was requested and required not to use sort of newer or more interactive methods with the students. Um, he smiled and nodded and agreed that would probably be important and then went ahead and wrote me up as though I should have been doing it anyway.

Derek wondered if the evaluator really understood the difficult situation Derek was in. The possibility also crossed Derek's mind that the evaluator was not engaged enough in his task to even remember from visit to visit what Derek's circumstances were. As a result, Derek felt as if he were being evaluated in a vacuum. There was very little connection between Derek and the evaluator:

He never seemed to remember from session to session what we had discussed or described in the previous ones, and was... I got a very strong sensation that he never listens to, uh, my explanations of what the situation was, or how I was reacting to it. And, uh, he... with a few exceptions, his criticism made very little sense to me, and when I asked him to elaborate, when I tried to explain what was happening, we... we just sort of talked past one another and he... I don't know if he appeared in a hurry to sort of get it over with and move on, but it was not... there wasn't a lot of good communication.

Eventually, Derek stopped asking the evaluator for elaborations, and took the feedback at face value. To Derek, the graduate student evaluator always seemed rushed, and did not spend what Derek felt to be an adequate amount of time observing:

And they get up and teach for two weeks, and get, you know, a little bit of feedback here and there from, you know, sort of a graduate student who would, you know, charge in for thirty minutes, and then charge on out again – which, by the way, I have an argument with: if you’re going to observe, observe for the whole period, from 10 minutes before until 10 minutes after, a certain period has gone by. Because otherwise, you know, you’re going to see chunks, and, you know, you could imagine the right thing or the wrong thing going into the other half... or going into the chunks that you missed. And... it’s uh, silly to, y’know, extrapolate from a limited sample what the rest of the day is going to be like, especially when you have something to observe like teaching, where so many different things have happened in the same time period.

In the end, Derek received high marks from the evaluator in terms of professional conduct and subject knowledge, but low marks for teaching ability. This greatly surprised Derek, since he had been a successful teacher in the past, and had received positive, constructive feedback from others. He conceded that he was not very effective in his student teaching, but felt that the situation could be easily attributed to the shackles placed on him by his host teacher. He became very skeptical of the validity of the evaluation process. Derek was especially upset that his evaluation depended so much on his ability to use techniques of discovery learning, since he did not receive what he saw as adequate preparation to use those techniques in his classes, and certainly was not going to receive any “on-the-job” training from his old-fashioned host teacher:

And another thing that I’m sort of bitter about is that I was expected to do... sort of teach in a “discovery learning” way by this, uh, graduate



student evaluator, without ever having seen it modeled, without ever having studied it in any class... it's ridiculous to assume – to think – to expect a student teacher, who is hitting this environment for the first time to be mastering a pretty advanced and difficult style of teaching within... two weeks of hitting the ground in some school. In my particular case against the active prohibition of the host teacher, so I just thought that there was an insanity in the, uh... in the expectations there.

Derek realized early on that there was no way that he could please or even satisfy all the people that would be evaluating him as a student teacher. He found himself having to choose between too many “masters.” Instead of trying to pull him in the same direction – toward being a better teacher – these various influences wound up pulling him in conflicting directions. The effect on Derek was dramatic, as were the words he used to describe his feelings:

Derek: I felt like during the student teaching, I was serving four or five different masters, that were just incompatible: the graduate student who was evaluating me; the professor who was placing us had a very strong agenda of things she wanted done, things that we should experience, and ways we should do things; then there was sort of the agenda of the bookwork from previous semesters; also the agenda of the administration of the school; and the agenda of the students' needs and how I can meet them as I perceive that; and then lastly the agenda of my host teacher, which sort of undermined a good three-quarters of everything else. So I felt like I was serving way too many different masters.

I: It was kind of a balancing act for you?

D: More like a drawing and quartering. (laughs)

## Reflections on Preservice Education

In general, Derek did not feel well prepared by his preservice classes. There were a handful of assignments that stimulated some thought, typically revolving around class layout, lesson planning, discipline policies, and other organizational matters. Overall, however, he found most of the assignments to be “silly.” He cited one example where he was asked to create a “developmental portfolio describing personal growth.” The professor stressed that the portfolio was not intended for use in job interviews, and Derek could not determine exactly what it was for. Derek felt this way about most of the assignments in his education classes:

And that’s the overwhelming reaction that I’ve had to my coursework, is I’ve forgotten all of it as soon as it... as soon as it went by. Nothing’s... nothing’s stuck. None of it seemed worth learning, uh, and very little of it seemed worth doing.

Derek found fault with many aspects of his preservice education. He noted that most of his classes did not deal with issues specific to teaching science, and only one of them – the class that accompanied his student teaching – had a professor with actual experience at teaching science. He found that the classes were scheduled poorly, with long gaps between classes that were very inconvenient for student teachers with day jobs and long commutes. He also wished that more classes had been offered in the summer.

Derek was very clear in his mind about what preservice classes were able to do, and what they were unfortunately unable to do. While he believed strongly that “nobody teaches you how to teach,” Derek felt that preservice classes could serve prospective teachers by making them aware of the issues surrounding teaching, and some of the specialized language of education. Specifically, he found his course on working with special needs students to be very useful. The course forced him to think about the issues involving special-needs students, and has made him more comfortable about having such

students in his classes. He was very interested to see that teaching strategies for helping special needs students were often simply good teaching strategies for any student. He credits much of the usefulness of the class to the extraordinary competency and hard work of the class professor.

Derek had much less complimentary words for his other preservice classes and their professors. Although he confessed to learning “a very few things” from his coursework, overall he felt that his preservice education classes were very easy. To Derek, the classes seemed to have very low academic standards that did not challenge him – or motivate him to learn – in the slightest. The education classes particularly paled in Derek’s mind compared to his science content courses:

I think it was the easiest thing I’ve done in 10 years, based on the amount of time I’ve put into it, and the amount of attention I paid in class. I paid little or no attention in class, and did very little work outside of class, and came out with a high A.

The science content courses, some of them were ball-busters, some of them you had to work real hard. And in none of them could you do nothin’ and get even a B let alone an A. So, far, far, far below the difficulty level of science classes.

Derek felt strongly that his preservice coursework could have covered more material in more depth and been a great deal more challenging. Instead, many of the classes frustrated him with a great deal of repetition:

Yeah, heavy redundancy. Uh, we got the same basic message in a lot of different places. And lack of depth. Uh, we had a 30-minute “diversity sensitivity” session about 4 different times, and it was more or less the

same 30-minute session each time. Um, and we never, you know, really got into any beyond the most surface and bland stuff.

Derek had very little respect for most of his education professors. He got the impression that many of the professors had not been in an actual pre-college classroom in a long time, if ever at all, and were therefore very detached from the reality that the student teachers would be facing. He felt that many of the professors did not fully understand many of the issues and techniques that they were trying to explain to their students:

Uh, a number of in-class sessions were farcically bad, uh, in that a professor would go into describing some technique that he or she either knew very little about, or did a very, very poor job of presenting, to the point where students were openly laughing at the professors, or at their technique, or sometimes it's not entirely clear which.

Derek also held disdain for the authors of the textbooks that accompanied his education classes. He felt they were written at a very low level, with language and examples that were more simplistic than simple. He saw in most of his textbooks the same detachment from the classroom that he sensed in his professors:

But I think that... I get a strong sensation – and this is shared by others – that the textbook writers and the professors are in “La-La-Land” and they haven't done it in awhile. They all of course say that, “Oh yes, I used to be a teacher and I was a teacher for X number of years.” But they don't feel like teachers; they don't smell or taste like teachers by the time they become education professors. Um, they don't have that same... they don't impress me as being cognizant of the realities of the classroom, or having reconciled what they're saying to what they did or what they saw.

By contrast, Derek developed a great deal of respect for his fellow student teachers. At first, he felt that since he had so much more teaching experience than most of the members, he would be able to get very little out of interacting with them. He soon found that this impression was mistaken. Although he felt he got little out of interactions with his professors, he was able to work out many of his classroom problems by discussing the problem with his fellow student teachers. The respect and camaraderie he felt in the presence of his classmates shored up his sagging morale, and made his preservice training more bearable.

Although Derek was of the very strong opinion that preservice classes can “never, never, never teach you how to be a good teacher,” he did feel that professors could provide valuable feedback to prospective teachers in a variety of ways. In fact, some of the most useful communication that he had with his professors was through written feedback on assignments. But when he was actually in the classroom, he felt he received little to no helpful feedback, from his host teacher, his graduate student evaluator, or his supervising professor. Opportunities for growth and improvement were lost, because he could not get a reliable assessment of what he was doing, and how he could do it better.

In a handful of “microteaching” exercises, student teachers did have the opportunity to give and receive constructive criticism by acting out hypothetical situations with their fellow students. However, Derek felt that the microteaching sessions were too few in number to expose him and his classmates to a broad spectrum of situations. He expressed concern that many of the student teachers themselves undermined the microteaching by not taking their role-playing seriously. Additionally, the situations were too idealized and hypothetical, and vastly different from the actual situations he encountered as a student teacher. For example, students misbehaving in class frequently denied that they were doing anything wrong, a situation that never arose in the role-playing sessions. Derek suggested that the microteaching exercises could benefit from viewing videotapes of actual teacher-student interactions, to allow the prospective

teachers to get familiar with the atmosphere of the high school classroom. Derek found that atmosphere very “oppressive and unhappy,” and the attitudes of the students “defiant,” and felt that the role-playing exercises in a college classroom did nothing to warn him.

The feeling of disconnection from actual classroom experience that Derek felt was not limited to the microteaching exercises. It seemed to Derek (and, by his reckoning, to most of his classmates) that the classroom management methods suggested by his preservice classes were not grounded in classroom reality. He did not find a strong connection between the discipline methods he was studying and what he needed to succeed as a teacher. For example, it seemed to him that many of the discipline methods he was told about assumed that a teacher could easily arrange for a one-on-one meeting with a student to discuss a problem outside of class. His experiences as a student teacher led him to call such an assumption “nonsense.” In general, he felt that the classroom management methods presented in his classes were far too simplified to be applied to the complex world of classroom teaching. He wondered if such techniques were geared to more “functional” schools than the one he was assigned to, or if they were simply not based in reality at all.

Poor classroom instruction coupled with a lack of input from his host teacher (who appeared to Derek to exercise no discipline at all) left Derek somewhat adrift regarding classroom management:

I mean I could see how, you know, a couple times they tried real hard to get as close as possible to the real thing, sort of get us to where we would not have to stop and think and experiment, or screw up repeatedly before we found effective ways to handle common situations. But, boy, I didn’t feel prepared at all.

In many cases, Derek found that he had to resort to trial and error in matters of classroom management. This frequently turned out badly, in both the short and long term:

But, uh... but, uh, the ideal being that we read and talked about some theoretical, you know, models, and general approaches to classroom management, but it was very vague and sort of unreal, and more or less theoretical. Or at least that's how it came across. And I found that when I was in a situation, I did not have ammunition or training in how to effectively, you know, work my will. How to have the outcome be positive.

And I wasted a lot of capital, angered individu –a few individuals students a lot, and sort of lost some of the respect of the class by being ineffective, and, you know, took a long time to sort of recover from that just because of a few stupid little incidents.

Derek also felt that his own low level of experience in a high school classroom detrimentally affected what he got out of his preservice coursework. Although he found a little more integration between his student teaching and his coursework than he initially expected, he felt it was not nearly enough. More experience in the field would have allowed Derek to bring more to the table in class discussions:

So that could have – my preservice experience is very important to my preservice coursework. I would be more able to confront, discuss and ask the professors – among other things, in classroom management. I would be able to more intelligently discuss with them the material they were trying to present, and maybe get some value of it if I'd had more real experience earlier on in the process.

Derek proposed that prospective teachers should get actual classroom experience, even just as a substitute teacher, as early as possible. As with many of his fellows, Derek felt that his preservice classes could never compare to classroom experience:

Um, you know, what I have learned from this... from this process is that, uh, at least so far there's no substitute for experience. None of the coursework was as good as the field experience.

### **Moving On**

All in all, Derek was glad to see his preservice education come to an end. Coursework that was of little use to him combined with a hostile and unhelpful host teacher left a very bad taste in his mouth. Being under the thumb of his host teacher left him with a disturbing tendency to lecture, having had no opportunity to practice any other techniques. The unfair evaluations he was subjected to left him more defensive and less receptive to suggestions and feedback. His experience with his education classes, which he classified as “stupid and wasteful,” left him with little respect for the education research community. He left his host school feeling disillusioned with the public school system as a whole. His feelings of relief at the end of his preservice education were very strong, and strongly expressed:

I would say it [preservice education and student teaching] has make me a worse teacher, a worse human being, and I hope to grow out of it, and to shed it like a skin, like a snake.

Derek cited his previous teaching experience and the moral support of his wife as to the two most important sources of help that got him through student teaching. His past successes in teaching provided him with confidence and pleasant memories. He had that confidence shaken by his student teaching experience, but believed that his student teaching experience was very close to a “worst-case scenario” that he can rise above.



Derek left his student teaching knowing that he had secured a placement teaching physics at a private school. He was very happy to have this opportunity, as his student teaching had soured him on teaching in the public schools. He hoped that with time, the joy and energy he used to experience from teaching would return.