THE SCIENCE GUY

Nick Metz

Arts and Sciences/ Alden, New York

At the age of thirteen I sat quietly at my lab table in my science class. We had just had a test the day before and my teacher, Mr. Borkowski, was passing them back. He called my name and slipped me a paper; I noticed that he was giving me a strange look. I picked up the paper and saw a 55 percent, an F. I practically passed out on the spot. Moments later he erupted in laughter awakening me from my stupor. I was incredibly confused. Why was he laughing at my misfortune? Then I looked down and saw that this wasn't my test. It wasn't anyone's test in fact. He had taken a blank exam and just put that low grade on the top of it. He then handed me my real test and I slowly exhaled as I saw a much better grade. After class he called me aside and explained that I was always so uptight and needed to calm down a bit. I needed to open up and expand my horizons. At that time, I probably gave him some blank stare, not really comprehending what he was talking about. Many years later I realized that that very moment began the process of becoming the student I am today.

Over the past thirty-four years, Paul Borkowski has had an impact on many students' lives. At times he may seem firm, but he is always fair. On the day that I visited him, there was a student who had committed to doing an extra credit project. When it came time to hand them in, he had nothing. His excuse, "it was only extra credit." This didn't fly very far. It wasn't the fact that he didn't do the project. It was his failure to follow through on the commitment that really irked him. Teacher Borkowski made

sure he conveyed this to the student. Some teachers may have been content to just brush the whole situation off, but not him. After all, "the kids need to learn responsibility at some point."

Contrary to what Thomas Gradgrind thought in the novel Hard Times by Charles Dickens, the imagination is a great thing. Throughout much of that story, Gradgrind preaches the need for facts, facts, and more facts. The use of the imagination is frowned upon and even associated with failure. A general science class definitely has its share of facts, but it's very easy to see a young mind drifting away if pure fact is the only thing presented. My former teacher implored upon me the importance of teaching to the moment in order to keep the students interested. On that March day, the topic of the lab was superposition, or the layering of rocks over a geologic time period. That in itself is probably not something that many eighth grade students find interesting. A recent survey of students revealed that "discovering and seeing how things work in everyday life," is something that they enjoy the most about science ("An Encouraging List For Science Teachers" 1). Realizing this, he began each class period with a discussion of the MIR space station. It was about to come crashing back to Earth from its orbit high above the Earth. This fascinated students, and they took every opportunity to ask questions about it. I could see the wheels of their imaginations turning. Immediately, the attention of everyone in the classroom was in the grasp of the teacher. From that point, superposition didn't seem so bad after all.

Being a teacher requires an enormous amount of work. Teaching to the moment isn't always easy and takes quite a bit of planning. In

addition, he really doesn't use a textbook as anything else other than a guide. The Iowa Scope, Sequence, and Coordination Project found that "expert" science teachers did just that by going beyond a typical textbook, and applying the principles of science to more practical uses (Varrella 44). This takes time and between lesson planning and general work such as grading, Paul Borkowski's job takes up much more time than the typical forty-hour work week. It's not out of the ordinary for a teacher to have this happen and work longer hours than many in other professions. However, his commitment is far above the additional time most instructors put in. He saw disbelief enter my eyes when he told me that he comes to school everyday at 5:30 AM, almost two hours before the school day officially begins. Then when the last bell rings and the last student leaves, he typically has another two to three hours of work ahead of him at some point during the evening in order to make sure everything is ready for the next day. This is an enormous amount of dedication. Few if any of the students sitting there realize the immense amount of time he puts into his profession. He doesn't do it for the compliments though; he does it with the best intentions possible for the kids he sees five days a week. It may seem at first to be a thankless job, but he gets all the thanks he needs when he sees a student succeed and learn something that had never entered his mind before.

Throughout a typical school day, he has a teaching load of five actual science classes. All of the classes are more or less the same, except one. Before this class ever began, he informed me that it would be different from the rest. It was different, because special education students made about half of it up, as is the case everyday. One of the special education teachers, Mrs. Ann Pelitera, helped out during this period. The special

education students require a bit more attention than the regular students, but Mr. Borkowski says he doesn't mind. "Every student gets science" is his philosophy, and he has been following it for years, even before the push for a more integrated classroom. He talks about how these students may be a little slower in some ways, but they deserve the same opportunities to succeed as anyone else. As the class worked, I couldn't really notice much difference from any of his other classes. There was a truly hands-on approach as is the case with most expert teachers who try "to establish a 'working with' (as opposed to controlling) tone and climate in the classroom" (Varrella 44). The job they did in integrating them into the class at large was amazing. The extra work to achieve this may never be noticed by most, but it was quite apparent to me on that day.

Thirty-four years in teaching probably helps to make such things possible, but what is even more amazing is that he has been teaching in the same Alden Central School district for all of them. In an age when people change jobs and professions about as quickly as the seasons change, Paul Borkowski has been steady as a rock. It has been something that he always wanted to do, and he has filled the ideal of many by staying in one spot for all of his years. How was this possible? Well, his response for the record centered on the idea that everything had just gone right for him and there was some luck involved. But there is luck involved in everything: his success as a teacher has stemmed from more than just luck. Chances are, he wouldn't still be around today if his work ethic was lacking or if he didn't get results. Instead of centering on luck I think talk of his longevity should be a testament to the way he teaches, and the obvious successes he must have had over the years as a teacher because of it.

What has been even more amazing is that he's been able to mold his teaching style to change with the times. He had quite a bit to say about how the profession has changed. Today there is a lot less support in the homes, due to broken families, and because of it, teachers have to shoulder quite a bit more responsibility then they did just a decade or two ago. Present day students aren't as willing to take responsibility for their actions as they used to be. This has added even more to his burden over the years, although he's quick to point out that students aren't necessarily more difficult to control today. He doesn't mind trying to do all he can for the kids. When it comes down to it, if a student fails, he feels as though he has failed in some way as a teacher. I could tell that he really felt a personal attachment to his students and his work. When he talked about students failing, it was almost as if I could see him thinking back over the years to the times when in his mind he had failed. The memories of both his successes and his failures must run deep.

Eighth graders aren't always the most well behaved students, especially when it comes to the boys. Many are just beginning to go through puberty, and sometimes the only word that can be used to describe them is *monstrous*. I couldn't figure out why anyone would want to teach students who were this age level. My former teacher once again showed how much he truly cares about what he is doing. The middle school years are when the students are still growing. During this time, he feels as though he can still have some impact on their lives. Not only can this impact be felt in the area of science, but more generally in the way they think and their outlook on life. Once they reach high school, most students are more or less fully formed. This reasoning comes from a man who has had the opportunity, probably

many times, to move up and become a high school teacher. Each time he said "no", staying where he thought he could be of most use to the students. It isn't himself that he has been putting first all of these years. He's had the interests of the students in mind.

Even after so many years on the job, there are still many problems that bother him. When I brought up school shootings, such as the one in Columbine, he was absolutely speechless. Slowly he began to open up on the subject and he began to talk about student violence in general. Some kids that are growing up today have never had to face any consequences for what they have done. As a result they don't realize the horrible nature of any crimes they commit. He doesn't just see it as a problem with the school systems; it's more of a "national joke." What he said next startled me more than anything else we would talk about. Just casually, I asked if there was any risk of school tragedy in this school. Very somberly, he replied "yes." I was shocked. This is Alden, NY, a town of 11,000 people, a quiet suburb of Buffalo, and now I'm being told that we are not exempt from such terrible things. I snapped back into reality to listen to the rest of what he was saying. Sometimes, the "at risk" students can be tough to monitor, because it can be difficult to determine who exactly is "at risk." Does a person keep to himself just because he is shy, or because he really has some sort of deeper problem? This is a question, which will continue to haunt many teachers and administrators. One thing is for certain though. My one time teacher echoed many when he made the point that it is necessary for something to be done. It may be true that violence in schools is a bit overblown. "According to the journal Criminal Justice Ethics, more than 99.99% of public schools have never had a homicide of any kind" (Cloud et al. 44). Still

though, violence of any kind is still possible in today's society. A teacher who has been around as long as he has wouldn't concern himself unless he truly thought it to be a problem. So far, Alden has been lucky, nothing has happened, but one day someone may snap. He keeps his eyes open to make sure he does everything he can, to make sure that day never comes.

As in the case of possible problem children, it's often difficult to put people in a certain group. That hasn't stopped people from stereotyping there, and in other areas, as well. For instance, there has been the stereotype that science is mostly a male endeavor. "The National Assessment of Educational Progress found that, for thirteen year old girls, gender differences in all areas of science performance except biology actually increased during the 1980s" (Orenstein 215). I was wondering what a male science teacher would think about a thought like that. The stereotype had a grasp on my mind because I was a little surprised to learn that when it comes to his class, girls actually do better. It is true that boys often succeed at a higher rate when it comes to labs and some of the more hands on work, but when it comes to overall grades, girls are the winners hands down. He said that it has always been that way. Had this come from a lesser source, I may have been a bit skeptical, but he's been such a pillar in his field for the past three and a half decades, he had the grades to back him up.

All of this factual stuff was interesting, but I really wanted to probe further into his thoughts and feelings. I really hit the jackpot when he said that teaching has been something that he has enjoyed immensely over the past years. Now from many of the things he had already told me, and that I had observed, it may have been easy for me to draw this conclusion. When he stated it in those few words though, it meant so much more. Now there

was absolutely no doubt in my mind about his character. It's one thing to put on a show for an interviewer just to make oneself look good. In fact, I'm sure many people do that. When he talked about how much he enjoyed teaching, his eyes seemed to light up. Immediately I thought of the way the young teenagers' eyes lit up when he discussed the MIR re-entry. That's all he is at heart, a big teenager. He's gone through his entire life doing what he has loved. That's why he's been able to do such a great job of getting through to his students. The joy he feels in being a teacher, translates to all of his students. The students may not realize it at the time, as neither did I, but when looking back, it is quite obvious. Sometimes you don't realize things until much later in life. Many of the students he has today probably don't think of him as anything more than just a science teacher. However, as when he told me that I needed to open up more, they will truly understand the depth of his impact many years down the line.

Thirty-four years is quite a long time for anyone to be in the same profession. So as the interview came to a close and he mentioned that he was going to retire after this year, I shouldn't have really been surprised. Someone should have told my stomach that as I felt a knot deep in my stomach. My former science teacher and a science teacher for so many students won't be coming back next September. They say that change frightens people, and this may be true, but there is more to it than that. I felt a sense of sadness that future classes wouldn't be afforded the same run-in with a really great teacher that I once had. They will still come up through the system well versed in science and Gradgrind's facts, however there will be something missing. It took me a long time to realize exactly what special lesson he taught me, but now I know. He helped open me up to be myself.

I did exactly what he said, and I did stop being so tight. I didn't do it though with his words constantly ringing in my head. I did it because he helped to show me that I could.

Today there is a student sitting at my exact seat at a lab table. He's incredibly uptight wondering about the grade he got on his last test and nothing else. A bad grade may be the end of him. When he finally gets his exam grade, it is in fact a bad one, but he gets something else, a laugh from the teacher. The momentary despair quickly evaporates as he gets his real grade. Later, Mr. Borkowski will pull him aside much as he did me and explain how the good grade is great, but there can be things that are more important. The student will give him a nod back pretending to understand but he won't, at least not then. It won't be until a few years down the road that he'll realize that there is so much more to life than a grade on a science test.

List of Works Cited

"An Encouraging List For Science Teachers." Curriculum Review 37.5 (1998): 1.

Cloud, John, et al. "The Legacy of Columbine." Time 19 Mar. 2001: 32-35.

Orenstein, Peggy. "Learning Silence." Crisis in American Institutions 11 (2000): 210-217.

Varrella, Gary F. "Science Teachers At The Top of Their Game: What is Teacher Expertise?" Clearing House 74.1 (2000): 43-45.