What Do You Teach?

If you are a teacher, I bet you can relate to the following situation. You meet someone for the first time and during the conversation it comes out that you are a teacher. More times than not, their first question is, "So, what do you teach?" For many, many years I responded by sharing with the person that I teach food science. Sometimes, I would follow up by explaining some of the specific areas that food science includes, such as food chemistry, food engineering, food microbiology, sensory science, and so on. Other times, I would tell them about some of the graduate level topics I teach, such as water relations in foods and scientific communications. Recently, I realized my response needed a paradigm shift. I decided the next time I was asked what I teach I was going to enthusiastically respond, "I teach students!"

This paradigm shift was brought about, in part, by a recent request by the College of Agricultural, Consumer, and Environmental Sciences (ACES) to review our "What I do and why it matters" statements.[i] I decided to rewrite my statement and include one sentence about my research and one sentence about my teaching. As I began to write about the subject matter that I teach, it dawned on me that the important thing was not the subject matter I teach, but rather that I teach *students* the subject matter.

I don't think anyone would argue that it is critically important for teachers to know the subject matter they teach. In the same regard, my new response implies that it is also critically important for teachers to know the students they teach. I know how to learn about the subject matter I teach, but how do I get to know the students I teach? As I ponder this journey of getting to know my students, it seems there are two general aspects to consider – getting to know them as individuals and getting to know them as a cultural group, that is, as today's young adults (Millennials, Generation Z). We have touched upon the first aspect of this journey in previous editorials that focused on caring for our students (see Schmidt, 2016a, 2016b, 2017), but it seems equally important to take a look into the second aspect of this journey – who are these young adults and what do they need from us educators?

Truthfully, in and of myself, I am not well equipped to fully address these questions, but don't fear, the literature is here! An excellent "read" that directly and comprehensively addresses these questions is "Marching Off the Map: Inspiring Students to Navigate a Brand New World" by Tim Elmore and Andrew McPeak (2017). As the title implies, this book is not about putting new wine (new strategies and techniques) into old wine skins (the same old educational system), but rather about drawing an entirely new educational map – moving our practices from "old

school" to "new school." Elmore and McPeak argue the need for a "new map" for teaching and leading the youth of today based on three significant cultural changes in technology, childhood, and adulthood. Let me try and summarize what evolutionary changes Elmore and McPeak say are occurring in these three arenas. I'll also add the warning that these changes are not all "warm and fuzzy."

Technology is rapidly transforming how we live. Ready or not, technology and all it has enabled and caused surrounds us – smartphones, 3D printers, super computers, digital cameras, autonomous vehicles, gaming systems, drones, bitcoin, brain implants to reverse paralysis, 360-degree cameras, social media, gene therapy, genetically modified food, and, of course the internet, to name just a few. As Kevin Kelly asserts, ". . . we are morphing so fast that our ability to invent new things outpaces the rate we can civilize them. These days it takes us a decade after a technology appears to develop a social consensus on what it means and what etiquette we need to tame it (p. 29)." How does the rapid evolution of technology affect how we prepare our students, especially considering that the world in which our students are born will not be the same world they grow up in (p. 29)?

Childhood, as it is historically known, is disappearing. Uncensored and often unfiltered information is constantly available to kids, depriving them of the opportunity "to experience innocence and wonder" (p. 10). However, access to all this information does not translate into maturity. Rather, many young people exhibit what Elmore calls "artificial maturity" – "they know a lot – but too often it is artificial, not authentic" (p. 11). A majority of today's children are over-exposed to information and under-exposed to real life experiences. How do we prepare students to succeed in *real life*?

Adulthood, which has traditionally been associated with sensibility and responsibility, is now being characterized by impulsive and emotional behaviors. Adult authority is trending down, while adult behavior is becoming more like that of a child. For example, it is commonplace these days for mothers to regularly post their feelings and opinions, however offensive they may be, on social media, while dads are doing the same things at their kids' athletic events and getting reprimanded or, worse yet, ejected. "The behavior of adults and children has become more and more similar" (p. 12). Adults are losing their "aura and authority" (p. 13). How do we provide students with role models worthy of imitation?

Times are a changin' and they are a changin' fast. So fast, that we need to start educating students not just for the world they know when they are in school, but also for the world they will graduate into and the world they will grow old in. No wonder we need a new educational map! The old map, set in motion in large part by Horace Mann, was constructed so that students would be educated to contribute to the same world they grew up in and the same world they would grow old in – which used to work okay, for the most part. It's not that the underlying purpose of school needs to change – school should still be about "equipping

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[i]These statements, initiated by Dean Kimberly Kidwell in 2016 in the College of ACES, consist of 2- to 3-sentences that reflects what you do and why it matters so that anyone who reads it can understand the importance of your contributions to the College's mission. This idea of starting with "why" is based on the Golden Circle concept by Simon Sinek, as discussed in his book and TED talk (2009a and b, respectively). My one sentence about teaching became "As a teacher, Dr. Schmidt is devoted to helping students develop and mature as scientists and citizens that make a difference."

an emerging generation to take their place in history; to improve their world; to solve problems and to serve people" (p. 34), but we need pioneers to discover a new way to do school. The key question for us educators is "Will we be among the pioneers or will we choose to be among the settlers?"

Though you'll need to read the Marching Off the Map book to get the rest of the story – what must we change and how must we change to accomplish this – I want to leave you with something I found both encouraging and inspiring about the path forward. As suggested by Elmore and McPeak, adults "must enable the students to leverage what is new, yet at the same time hold on to what is ancient, yet valuable" (p. 24). In other words, we need to value both the past and the future. In doing so, we actually become pioneers. We **explain and equip** our students with the ideals every generation needs (timeless), such as integrity, discipline, and empathy, and we **adopt and adapt** what is new (timely) and help our students leverage it well. A popular example of this adaptation is the musical "Hamilton,[ii]" which blends the telling of a timeless story of rags to riches leadership within a timely genre of rap music. Similarly, as educational pioneers, we are to reach backward and forward at the same time (p. 25) to give our students the best of both worlds!

One of the Hamilton-like adaptations I plan to make in my introductory, large enrollment Food Science and Human Nutrition (FSHN 101) course this Fall is in regards to the "Getting to Know You" assignment. The purpose of the assignment is for the teaching team to get to know the students and for the students to get to know each other, which can sometimes be difficult in a large enrollment course. In the past, I have had students submit a two page "bio sheet" with a picture to introduce themselves. The underlying principles of the assignment (that is, fostering teacher–student and student–student relationships, developing good communication skills, making good first impressions) are timeless skills, but, I must admit, the "bio sheet" format is pretty "old school." The dictated "two-page format" limits students' creativity and does not allow students to use current modes of communication. So this Fall, students will be asked to tell their stories in an "All About Me" assignment, including sharing how they got connected to their major (food science, dietetics, human nutrition, or hospitality management), using "new school" communication modalities, such as visual narratives,[iii] comic strips, and graphic novels.[iv] There are numerous free and low-cost internet-based websites and apps for creating these "new school" communication modalities, which students can use (for example, Storybird, Smilebox, Comic Life, Make Believe Comics, and Prezi, to name just a few). It will be exciting to see the student-to-student collaboration that goes on, as they are free to choose what platform they use to tell their story

– I am sure we will all learn a great deal! And isn't that one of the great benefits that results from the flexibility of the assignment?

An important "new school" aspect of these communication modalities is their multimodality—the combination of two or more modes of communication (Dallacqua, 2012). Language is no longer the sole means for representation and communication, as stated by Burmark (2002), "Welcome to the age of images[v]." Visual literacy, the ability to create, read, and/or understand visual messages (Burmark, 2002), is becoming as important as reading and writing literacy. The "All About Me" assignment is now keeping pace with the changing means and tools of communication (timely), while still helping students garner the timeless skills of relationship building and proficient communication.

Before we wrap up, I have one more adaptation thought to share[vi]—what if students were given the opportunity to produce their "All About Me" assignment in their native language, if they wished (as well as provide an English translation as it is the common language of the class)? Perhaps, introducing themselves in their native language would make the non-native English speakers feel more comfortable. It also aptly recognizes that the world is becoming multilingual—just one more of the many timely elements that needs to be embraced.

Well, I hope the next time someone asks you the seemingly simple question, "What do you teach?" that you have the opportunity to share with them about the interesting, amazing, and truly unique students that you teach your subject matter to, as well as all the timely means you are employing to teach them!

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[ii]Hamilton, which opened on Broadway in 2015, is a sung- and rapped-through musical about the life of American Founding Father Alexander Hamilton, with music, lyrics, and script written by Lin-Manuel Miranda. The first year Hamilton was nominated for a record setting 16 Tony Awards. The musical achieved both critical acclaim and box office success for its hip-hop, rhythm and blues, pop music, soul music, traditional-style show tunes, as well as its color-conscious casting of non-white actors as the Founding Fathers and other historical figures (Hamilton, Wikipedia 2018).

[iii]A visual narrative (also termed visual storytelling) is a story told primarily through the use of visual media. The story may be told using still photography, illustration, or video, and can be enhanced with graphics, music, voice and other audio (Visual narrative, Wikipedia 2018).

[iv]Graphic novels use images and printed text to engage readers and tell a story (Dallacqua, 2012). Dr. Leon Liebenberg, Senior Lecturer, Dept. of Mechanical Science and Engineering, Univ. of Illinois at Urbana-Champaign, first introduced me to the idea of having students produce graphic novels as play-based learning activities, which he does in his engineering courses.

[v]Elmore and McPeak (2017) point out the irony of images being viewed as the new bitcoin of literacy, since communicating using images is really not very new at all, as any caveman can tell you! In reality, images are a universal, multi-generational, and timeless language.

[vi]Allowing students to use their native language to tell their stories was my daughter Annie's idea, as well as the new title of the assignment! She also tested out telling her story using Make Believe Comics and Google slides.