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Interview with
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Contributing Editors

1. You are involved in both gifted education and technology. How do you combine the two?

I became interested in these two seemingly disparate areas because I saw them both as pressing needs in education. Based on the results of most of the large-scale reports on college readiness that I have read (ACT, 2013), we have a good bit of work to do. For big answers and innovations in the future, I think we are going to have to do a better job of encouraging gifted students. Having talent is wonderful, but that talent must be nurtured and mentored. Similarly, I saw technology as an important way to help students address the big questions and challenges in the future.

Technology is changing the ways all of us interact with the world. Those who are involved and understand technology will have expanded opportunity and access in the future. Isn’t technology instruction a little like foreign language acquisition, where the sooner we can get students involved, the better outcomes we get?

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2. Does it seem that gifted students learn technology more quickly and use it more expediently?

One marker of gifted individuals is the advanced rate at which they tend to acquire new concepts and skills. This is why giving them pre-assessments of concepts, allowing them to compact material, and acceleration are such effective basic interventions with gifted students. Thus, gifted students will probably learn technology more quickly. However, I think personal characteristics like openness to new experience and persistence are probably as important to learning technology. Meaning, a gifted student who is resistant to new experiences and not tenacious will not learn technology as quickly as a less gifted student who is passionate about what he or she is learning. You simply cannot remove motivation from the learning equation.

3. The Internet helps gifted learners access information more quickly and expediently, but are they cognitively able to evaluate it, analyze it, and separate quality from quantity?

Not necessarily, I think being able to separate quality from quantity comes from experience and exposure to the technology. Experience also helps you to internalize standards by which you can judge the veracity of information. I think wisdom helps us to see that quantity and quality are two very different things, and the former does not necessarily guarantee the latter. Students need teachers and other experienced mentors to help model how to rigorously evaluate content.

4. What specific tools have you found to be of benefit with gifted kids in terms of instruction?

In my opinion, the most important "tool" is choice. It is an incredibly powerful tool, to give choice to students. Deciding what they learn, the pace at which they learn, and how they can provide evidence of their learning are all critical discussions that we should be having with our students. Students being involved in the what, when, and how they are taught is crucial. The other aspect I think is important is the use of assessment to guide our instruction. We need to have principled explanations for why we are exposing students to different lessons, concepts, and content. Data from assessments give us rational reasons for different instructional choices and help us better reach our students.

5. How can you use technology to teach an appreciation of literature, the arts, the humanities?

I consider myself part of the camp that sees a distinct advantage in encouraging students to expose themselves to literature, the arts, and humanities. I see relevant job-related skills that these disciplines teach, such as critical thinking and the ability to create clear and meaningful writing on a deadline. Moreover, I think these content areas help us learn how to deal with life's opportunities and challenges more authentically. These disciplines help us to engage with life a little more fully and richly.

6. Public speaking, debate skills, discussion skills—how do you encourage these skills in gifted kids and how can you use technology to enhance and ameliorate those skills?

Public speaking and debate skills have been critical to active and responsible citizenship in societies from the ancient world to today. Technology plays a significant role in teaching these valuable skills. Gone are the days when students would be practicing debate in front of mirrors. Technology enables students to record their performances and then receive input from their families, teachers, and peers, focused on a specific portion of their presentation. Technology also permits synchronous and asynchronous discussion from a far wider audience than previously imagined. Technology has permitted individuals to have the kind of critical conversations that, a generation ago, were only able to occur in face-to-face classrooms.

7. With the Internet, students can travel to the Louvre and many famous museums around the world. Do teachers of the gifted take advantage of this?

Technology has undeniably given students access to the world in a way that only exceptionally high-quality periodicals gave to previous generations, and modern technology allows those experiences to be interactive. Some teachers take advantage of these opportunities, but I think our job as individuals interested in technology is to try to find ways to reach more teachers, parents, and students and show them some of the resources that are out there.

8. Perfectionism and procrastination are often thought to be problematic areas, as well as underachievement, in the gifted. How can you employ technology in this realm?

I think adolescents have a complicated inner life. It is a challenging time, replete with numerous physical, social, and emotional changes. Giftedness probably complicates what students experience and feel. I have been thinking a lot recently about the psychosocial impact of "being misunderstood." Several colleagues and I are in the brainstorming stages of a survey instrument which attempts to measure this construct. Thankfully, there are many other excellent researchers who focus on the emotional aspects of the school experience.

Much attention is leveraged on academic components, but I think with the pervasiveness of perfectionism, procrastination, and underachievement, we are starting to see some of the byproducts of not dedicating more resources toward affective areas.

9. Are there connections between Internet usage, socio-emotional development, and problematic behavior in adolescents?

The answer to this question is something that researchers, policymakers, and parents are really concerned with. Worldwide Internet use is quite high and increasing each year. Many educators, medical professionals, and families are specifically concerned with Internet usage among adolescents. This is most likely because of the amount of change children go through during this period. Many decisions are made by students at this time, and those decisions often echo into adulthood.

I think we are in the embryonic stages of figuring out what the connections are between Internet usage and problematic behavior. There is an effort by researchers to try and develop instrumentation which would allow us to reliably and validly
assess what they are doing on the Internet and which of those, if any, are related to developmental and behavioral concerns. For example, Ceyhan, Ceyhan, and Gürçan (2007) have worked on one such scale and conducted a reliability and validity study on the instrument with over 1600 participants. Some colleagues and I also worked on an Internet Usage Scale which we hope might also be somewhat useful (Monetti et al., 2011).

10. Is there a gender difference in the amount of Internet usage? How should educators plan technology lessons with gender in mind?

The current research suggests that in terms of overall Internet use, boys and girls are similar. However, there do seem to be differences with the specific ways that boys and girls use the Internet. One interesting study (Tsai & Tsai, 2010) looked at over 1000 junior high school students and found that while boys and girls were similar in regard to computer ownership, boys tended to be more exploration-oriented and girls tended to be communication-oriented in their Internet use. A cross-cultural study (Li & Kirkup, 2007) found that males seemed to be more involved in gaming than females. This same finding has been detected in other studies. For example, Joiner and colleagues (2012) also found that males used the Internet for games and entertainment more than females. They found too that females tended to use the Internet for social networking and communication more than males do. I think educators are still searching for a full explanation for how to use this information to plan technology lessons with gender in mind. We need to be very cautious not to stereotype, but instead, to use these findings to encourage teachers to offer lessons that are diverse enough, with enough choice, so that all students can find an interesting entry point.

11. Can you tell us about your research interests in psychometrics and what kind of instruments you believe we need concerning technology use?

My interest in psychometrics really is founded on the idea that good-quality data is necessary in order to make informed educational decisions. The quality of instruments is critical to the data-collection process. As our educational measurements continue to get more targeted and accurate, we do a better job of getting actionable information to families and schools. One recent example that comes to mind is what the Brain Development Lab, housed within the Department of Psychology at the University of Oregon, is doing. They are taking high-quality research findings, on effective early childhood educational processes, and using technology like Websites and video to get that information into individuals' hands, so they can make sound educational decisions. I do believe we need additional instruments for technology use with minors.

12. What self-regulation and epistemology variables did you find in your research that impact student achievement?

What drives some students to achieve and others not to? As an educator, I have always wanted to help every student do their very best work, and it is personally unpleasant for all teachers when the results are not ideal. I have realized that prior knowledge and ability play into the achievement equation, but what I have been most interested in are other variables that perhaps students would be more able to modify. This has led me to investigate the connection between self-regulation, epistemology, and achievement. Fortunately, there are two very high-quality instruments available to help us operationalize the variables.

For self-regulation, I have used the Motivated Strategies for Learning Questionnaire (Pintrich, Smith, Garcia, & McKeachie, 1991). For epistemology, I have used the Epistemological Questionnaire to measure the variable (Schommer, 1998). I honestly was fascinated by Dr. Schommer's work. The idea that students possessed epistemologies and that their views on epistemology could relate to how they performed in the classroom is very appealing. With the data set of 124 participants, we have found that almost a quarter of the variance in grade point average could be accounted for by personal self-regulation and epistemology variables.

13. Who has influenced you in your research?

One of my earliest research influences was my major professor in graduate school, Dr. Marcy Driscoll. She always asked courageous research questions and was not afraid to look at problems from multiple perspectives. I owe her a lot. Another substantial influence on my research was Dr. Bruce Tuckman. His work at Ohio State on helping diverse students be successful taught me so much about what was important. Another person I have been influenced by is Dr. Albert Oosterhof. I will never forget my phone interview with him as I applied to my graduate program. His patience as he taught (and retaught) me about classroom measurement was unequaled.

References