THE Teaching PROFESSOR

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Use It, but Don't Depend on Technology to Teach

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This article is not a Luddite's rejection of digital technology. Even though I feel some intellectual kinship with Swiss philosopher Jean-Jacques Rousseau in regard to how some tools affect people constitutionally, I readily admit that digital technology has made my job as a teacher much easier in a number of ways. Courseware makes it possible for me to share handouts with students without having to make copies. I can post web links for easy in-class access. Using email, I can make important announcements when my students are not in class, and they can contact me with questions about their essays. After my students visit a local science museum, I can have them post their thoughts about the visit to a discussion board, responding both to me and to each other as they ruminate on connections between the museum displays and related content in the course text. In short, for teachers and students—including sometime skeptics like me—digital technology, despite occasional overuse, facilitates interpersonal communication and accessibility to information.

In *Discourse on Inequality*, Rousseau notes how easily "conveniences" turn from novelties into necessities (p. 59). In other words, something that strikes us as a nifty innovation quickly becomes something without which (we come to believe) we cannot function. My own digital skepticism notwithstanding, I can see how technology has become an increasingly integral part of how I approach teaching. Easy access to video streaming from my institution's library is something on which I depend as I prepare class sessions.

In spring of 2016, however, I learned a lesson on taking digital technology for granted. After discussing the translator's conclusion to Galileo's *Sidereus Nuncius* in the first half of a class, I had planned to stream a library video on science and religion in the second half. As always, I double-checked the video access in the days before the class. It streamed without issue at home and on my office computer. At the crucial moment in class, however, the video would not play! As it turns out, there was a glitch with the classroom computer, and a technician I summoned through a "Help" button could not correct the problem that day. This was not the first time that a computer glitch had hindered me in class, but it was one of the more noteworthy occurrences. I was really depending on the video!

I can see how technology has become an increasingly integral part of how I approach teaching. Easy access to video streaming from my institution's library, for instance, is something on which I depend as I prepare class sessions that focus on certain texts.

For a moment, a feeling of anxiety overcame me. What to do now? After a deep breath, however, I recalled my ongoing inner battle to have my classes be more organic, something I have written about in *The Teaching Professor* (22.8). I thought about how the conclusion to *Sidereus Nuncius* included an abundance of material that I had chosen not to explore with my students because I had intended to show them the video. In lieu of the video, I returned to the text's conclusion. The class ended up not going badly at all.

The lesson I learned was really more of a reminder that the digital technology widespread in classrooms is a means, not an end. Chalkboards too were a means, not an end. If for some reason I did not have chalk in days past, I could still teach. Would this have been inconvenient? Of course. My ability to teach, however, was not inextricably bound to chalk and slate. The same is true with regard to digital technology. Even if my classroom's digital technology fails, hampering my lesson plan, I am still a teacher.

Reference: Rousseau, J-J. (1994). *Discourse on Inequality.* (F. Philip, Trans.). Oxford, England: Oxford University Press. (Original work published 1755.)

In This Issue

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- Keep the article short; generally between 2 and 3 double-spaced pages.
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Assignments: How Students Perceive Them

Assignments are one of those ever-present but not-often-thought-about aspects of teaching and learning. Pretty much every course has them, and teachers grade them. The grade indicates how much the student learned by doing them. But is this learning something that students recognize? Too often students see assignments as work the teacher makes them do for a grade. How often do students see or experience assignments as learning opportunities?

We don't know much about students' perceptions of their assignments. Teachers don't often ask, and it's not an area that's been explored much empirically. Some descriptive work recently reported in *Teaching of Psychology* begins to uncover what students think about assignments and whether they are proud of their work and understand it as a learning experience.

In the first of two studies, the research team sought to determine if assignments engendered pride upon completion. Did students feel proud of their assignment work? The assumption, verified by related research, is that feelings of pride and accomplishment motivate effort, which should mean more learning. The researchers also wondered if students reported feeling proud of certain assignments. Could the assignment features that engendered this sense of accomplishment be identified?

To answer the question, researchers asked 113 undergraduates in four sections of an introductory psychology course to select the one of 19 assignments they completed that they were most proud of. These assignments were required in the course "Learning by Doing." They were described as "activities for you to observe and think like a psychologist" (p. 324). The assignments were graded as a set, and they counted for 20 percent of the overall course grade.

Students selected the task of responding to "what you consider to be your best assignment . . . the one you are most pleased with or most proud of" (p. 324) by explaining why they were pleased with it. Students chose from the 19 assignments, and statistical analysis revealed that "yes, academic assignments can be distinguished on the basis of the feeling of pride they are associated with" (p. 324).

The assignments themselves were content-specific and, therefore, not as interesting to those outside the field as the reasons students gave for selecting them. Three themes emerged, starting with *effort*. If students worked hard on the assignments, they felt that sense of pride. Second, the assignment engendered pride if it had *self-relevance.* This theme is broadly defined. Sometimes the relevance was a function of students' connecting with the field as an area of intended study. In other cases, it was that the assignment had personal relevance. For example, the assignment most often chosen as the one students felt proud of involved a self-assessment that explored personality and career choice. The final theme involved *recognition by others,* which in this case consisted of positive feedback from the teacher.

In the second study, the researchers asked "whether variation in pride associated with the assignments were correlated with student judgments that the assignment was a useful teaching tool" (p. 326). Said more directly, they asked whether students thought they had learned something by doing the assignment. The methods and procedure were the same, but in the second study a different student cohort and smaller collection of assignments were used. At the end of the semester, students

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Making Multiple-Choice Exams Better

The relatively new *Scholarship of Teaching and Learning in Psychology* journal has a great feature called a "Teacher-Ready Research Review." The examples I've read so far are well organized, clearly written, full of practical implications, and well-referenced. This one on multiple-choice (m/c) tests (mostly the questions on those tests) is no exception. Given our strong reliance on this test type, a regular review of common practices in light of research is warranted.

This 12-page review covers every aspect of m/c exams, at least every aspect I could think of. What follows here are bits and pieces culled from the review. For teachers serious about ensuring whether their m/c exams (both those administered in class and online) assess student knowledge in the best possible ways, this article should be kept on file or in the cloud.

Perhaps the most important ongoing concern about m/c tests is their propensity to measure surface knowledge, those facts and details that can be memorized without much understanding of their meaning or significance. This article documents studies showing that students' preference for m/c exams derives from their perception that these exams are easier. Moreover, that perception results in students' using studying strategies associated with superficial learning: flashcards with a term on one side and the definition on the back, reviewing notes by recopying them, and so on. Students also prefer m/c tests because they allow guessing. If there are four answer options and two of them can be ruled out, there's a 50 percent chance the student will get the answer right. So students get credit for answers they didn't know, leaving the teacher to wonder how many right answers indicate knowledge and understanding the student does not have.

In one of the article's best sections, the authors share a number of strategies teachers can use to make m/c questions more about thinking and less about memorizing. They start with the simplest question. If the directions spell out that students should select "the best answer," "the main reason" or the "most likely" solution, that means some of the answer options can be correct but not as correct as the right answer, which means that those questions require more and deeper thinking.

Another strategy that promotes more thinking includes a confidence level indicator given along with the right answer. The greater the certainty that the answer is correct, the higher the confidence level. When scoring, a right answer and high confidence level are worth more than a right answer and a low confidence level.

Another strategy that promotes more thinking includes a confidence level indicator given along with the right answer. The greater the certainty that the answer is correct, the higher the confidence level. When scoring, a right answer and high confidence level are worth more than a right answer and a low confidence level.

Perhaps the most interesting way to make students think more deeply about the question doesn't use questions per se but contains several sentences presented as a short essay. Some of the information in the essay is correct, and some of it is incorrect. The students must identify mistakes in the essay. The m/c options list different numbers of errors so that students need to select the correct number.

There's also some pretty damning evidence cited in the article. A lot of us don't write very good m/c questions, especially those who write questions for test banks. The most common problem in an analysis of almost 1,200 m/c questions from 16 undergraduate courses was "nonoptimal incorrect answers," so designated if they were selected by fewer than 5 percent of the test takers. In other words, they're obvious wrong answers because almost nobody is picking them, and that means more correct answers are selected by guessing.

Students want test questions to be fair. If they think tests are, research indicates students are more likely to study and do, in fact, learn more as a result of their studying. What they mean by "fairness" is pretty straightforward. The questions need to be clear: students should be able to figure out what the question is asking even if they can't answer it. There should be a broad range of questions. If the test covers three chapters, there should be content from all three chapters. The authors recommend giving students sample test questions so they know what to expect and can't persuade themselves that memorizing a few definitions will be all it takes to conquer the test.

The article recommends several guides for writing good m/c questions. It's good to remember: the easiest questions to write are those that focus on specific information bits and have one right answer. Other details also merit consideration. For example, how many answer options should an m/c question have? Four? More? A fairly recent study looked three, four, or five options in terms of test reliability, response behaviors, item difficulty, and item fit statistics and found no evidence of significant

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Encouraging Engagement by Adding Job-Like Elements to a Course

By Hillary Kaplowitz, California State University, Northridge, Calif.
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Making college coursework interesting and relevant is a challenge. Recently, I considered using some sort of gaming strategy to motivate my students, but as I thought about what I really wanted them to gain from my class, it became clear that I needed to do the exact opposite. After all, what students learn in my class is not a game. I teach Corporate and Instructional Media in a Cinema-Television Arts Department. I want students to walk away with real-world skills that they can use in their first job interviews and in their lives and careers. So if fun and games weren't the answer, what could I do?

As I reflected on this, I realized that I wanted my students to take the class seriously, to treat it as a job, and to think of me as their boss. Could I create an environment to accomplish that result? I know other instructors who have used similar approaches, so I decided I would try. I started by using use job-related language in the course. I renamed the syllabus the "employee handbook" and opted to call the whole endeavor *jobification.*

Here is how jobification works in my class. On the first day I ask my students to do a five-minute free write responding to the prompt "Tell me your story." As I collect them, we shake hands and introduce ourselves. I explain that this class will be different because instead of being students, they have just joined a company and today is their new employee orientation. I hold up their papers, thank them for their job applications, and congratulate them on being hired as junior producers at 362 Productions. (My course is CTVA 362.) I show our company logo on a slide and start explaining what they'll be doing in this job.

Over the next 15 weeks, they will be designing a preproduction plan for a client that they bring to the company (course). They will attend trainings (lectures) to learn the skills needed to analyze the client's problem and develop a plan that solves it through media (project). The associated tasks (activities and papers) will need to be completed by the deadlines (due dates), and they will receive feedback and notes for revisions (grades). We will conduct status meetings (class discussions), and they will provide updates (presentations) on their projects. In addition, there will be periodic performance reviews (exams). As their executive producer (instructor), I will provide guidance and feedback on their projects as well as the training and resources they will need.

Even though I covered the same material in the course, it wasn't until I started using the "skin" of jobification that was I able to help students realize that this course was about more than just content.

I review the employee handbook (syllabus), going over those activities that will occur during training sessions at the company headquarters (classroom) and those they will complete on their own time. We go over the job aids (textbook and readings) and discuss the compensation (points) they can earn for their tasks and job performance, including their participation, attendance, and ability to meet deadlines. I pass out nametags, and we start the "new employee orientation" with an engaging meet-and-greet activity.

The job metaphor enables me to stress some of the less tangible skills of business communication and professionalism that are important for students to acquire. I further developed my approach in a faculty learning community for learner-centered course redesign (FLC). During the FLC, we were tasked to consider our dream for our students and look at our objectives and activities to make sure they line up with that dream. Like many of my colleagues, I discovered I didn't have objectives connecting to the human dimension, caring, and learning-how-to-learn areas that Fink recommends in his course design materials.

So I created some new objectives along the lines of "Evaluate the quality of their work, interactions, and business style writing as a professional in the context of corporate and instructional media." I used an ePortfolio entry as the activity and assessment for this objective. And for the first time, students reflected about what I really wanted them to learn long-term. Comments included: "I have learned so many useful and necessary skills that will help me in my career to come," and "It was a lot of work, but they were experiences that I can use for my career." Others mentioned how their personal development was positively affected: "I appreciated my growth in business professionalism in this class."

Even though I covered the same material in the course, it wasn't until I started using the "skin" of jobification that was I able to help students realize that this course was about more than just content. I so appreciate hearing, "My other classes are based on critical thinking, but this class is critical doing. I learned so much. I can truly say that I have skills that I didn't have entering this class, that I do have now, and it's awesome!" And it is as rewarding for me as it is for them.

Learning about Learning after the Exam

Exam debriefs are typically that: brief. The tests are passed back, score ranges are revealed, and the teacher goes over the most missed questions, identifying and explaining the correct answer. There may be a chance for students to ask questions, but most sit passively. This way of debriefing exams is efficient but has little else going for it. Students miss questions in most cases because they don't know the material, which is the likely result of not having studied enough or not having used effective strategies when studying.

Favero and Hendricks observe, "Despite the fact that the cognitive tasks in college multiply and diversify, students generally apply their similar study techniques across multiple disciplines until those techniques no longer produce adequate results" (p. 325). They note that exam debriefs are a good time to confront study strategy issues. In two sections of a human anatomy course taken mostly by biology and nursing majors, students were invited to debrief their exam during the professor's office hours at any time before the second exam. Fifty-two percent of the students accepted the invitation, with the remaining students serving as a self-selecting control group.

The exam debriefing (ED) process consisted of four parts that the students completed before meeting with the professor. The authors shared the handout given to students:

- Part 1: Students looked carefully at the questions they missed and tried to determine why each question was missed.
- Part 2: Students then examined the questions to see if there was a pattern emerging. Did they miss questions for the same reason?
- Part 3: Students prepared a brief description of how they studied for the exam, including the amount of time devoted to studying.
- Part 4: Based on the information gleaned so far, students identified what changes they thought they could make that might help them better prepare for the next exam. They were given a list of areas where changes could be made: time on task, attending to detail, using active learning strategies, and general study habits. Examples were given in each of these areas.

Did specific study behaviors account for the improvement in exam scores, or was it the result of participation in the whole process?

After completing this ED analysis, students met briefly with the professor to discuss their "findings."

Favero states, "A significant difference was observed in the mean increase in exam performance from the first exam to the second exam for those students that conducted the ED. The calculated effect size was 0.48, demonstrating a moderate or medium effect size for the ED" (p. 324).

The most common reason by far for missing questions was simply not knowing the basic anatomical information needed to answer correctly or being able to narrow down the answer options but then choosing the wrong one. Interestingly but perhaps not surprisingly, the most common study strategies used were passive ones: reading the book, taking notes, and reviewing those materials. Only about 25 percent of students reported they discussed the material with others in the class, and less than 15 percent reported active strategies like taking online quizzes.

In the ED process, students selected the behavior changes they believed they needed to make. All selected options from the active learning category in part, the authors believe, because those activities were demonstrated, modeled, and used in class. For example, many students reported using flashcards but only as devices that helped them memorize details like definitions. In class, Favero used an activity with flashcards that showed students how flashcards can be used more fruitfully to show relationships between, in this case, anatomical structure and function.

Did specific study behaviors account for the improvement in exam scores, or was it the result of participation in the whole process? The data collected here do not answer that question. It could be the more general approach of putting students in charge of a process through which they encountered themselves as learners who garnered these positive results. Whatever the cause, it's an interesting exploration of an approach that directly involves students in a debriefing process from which they stand to learn more about themselves as test takers.

References: Favero, T. G., & Hendricks, H. (2016). Student exam analysis (debriefing) promotes positive changes in exam preparation and learning. *Advances in Physiology Education, 40*(3), 323–328.

Note: Favero has also written an excellent article on in-class review sessions. Kudos to him for exploring instructional strategies that significantly bolster the learning potential of two class sessions that otherwise receive little attention in the literature.

Favero, T. G. (2011). Active review sessions can advance student learning. *Advances in Physiology Education, 35*(3), 247–248.

Using Interviews to Assess and Mentor Students

By Barbara Morgan Gardner and Kenneth L. Alford
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Have you considered adding five-minute student interviews to your teaching tool kit?

Before you calculate how long it would take to interview all of your students and dismiss this idea out of hand, consider how student interviews provide a unique setting and opportunity for you to teach students individually.

Extensive research confirms the value of student-teacher interactions. Sandy Astin's widely acclaimed *What Matters in College* reports that interaction between student and faculty has "significant positive correlations with every academic attainment outcome: college GPA, degree attainment, graduating with honors, and enrollment in graduate or professional school" (p. 383).

In our experience we have found student interviews are a highly effective alternative or supplemental assessment method and teaching tool that students find valuable. We asked almost 400 college students enrolled in general education courses what benefits they receive from faculty interviews, and they reported that interviews enable them to receive immediate feedback, provide a unique setting to explain their work, and help them feel more responsible and accountable with regard to the coursework. That's a laudable set of benefits. Here are the learning experiences we think interviews support.

1. **Performing**: Brief interviews can provide students with opportunities to demonstrate proficiency. They may be especially appropriate in courses such as music, physical education, science, language, and nursing where mastery of specific skills is an integral requirement of the course. Brief discussions regarding students' performance may follow, when appropriate.
2. **Reporting**: As a supplement to other traditional assessment methods, interviews can quickly identify what students have done as well as what they know. It may be appropriate in some courses to conduct longer, small-group interviews (perhaps for team project reports) that require a smaller time commitment than individual interviews. Reporting interviews have worked well for us in several courses, including a software engineering capstone course where student groups were required to demonstrate and explain their software as well as in a general education humanities course where individual students shared what they experienced while completing a self-selected personal development project.
3. **Mentoring**: Interviews provide an opportunity for professors to compliment, assist, correct, address problems and opportunities, and demonstrate interest. All interviews may include a mentoring component, and they can be conducted exclusively for that purpose. Unlike testing and reporting interviews that often are scheduled for all students, mentoring interviews can be set up more selectively with a subset of students (e.g., those who've improved a lot, those who need to improve a lot, those who've done something exceptional).

We asked almost 400 college students enrolled in general education courses what benefits they receive from faculty interviews, and they reported that interviews enable them to receive immediate feedback, provide a unique setting to explain their work, and help them feel more responsible and accountable with regard to the coursework.

Unlike other kinds of meetings students and teachers have in faculty offices, interviews are scheduled in advance, have stated objectives, and are generally more formal. Successful student interviews require advance preparation and planning by both the professor and the student. Here are some suggestions drawn from our experiences.

- **Interview early**: There's a temptation to wait and interview students at the end of a semester. There are more course-related experiences to discuss at that point. But that's when both students and faculty are stressed and pressed for time. Instead, we've found it's better to schedule interviews early in the semester to lessen the impact on our schedules and to provide students with feedback earlier in our course.
- **Clarify expectations**: The idea of being interviewed by the professor makes many students nervous. Reduce the stress by removing ambiguity. Explain the interview's purpose. Help students understand how to prepare for the interview and what to expect when it happens.
- **Be flexible**: Interviews challenge faculty members to connect with all kinds of students. There's a need for flexibility. Faculty need to let students be who they are with varied communication skills, enthusiasm, and dress. Part of the agenda is helping them learn to communicate comfortably with experts and those they perceive as authority figures.
- **Stay on schedule**: Students appreciate one-on-one time with their professor, but they typically value quality time over quantity. Students are busy people too. Five minutes is not very

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were asked to select the assignment they learned the most from and the assignment they were most proud of. Here as well, they were asked to give reasons for their choices.

Three themes emerged here as reasons for selecting the assignments; the *time and effort* and *self-relevance* themes were present in this data set along with a new third theme, *helped me understand the course material*. For the assignment students said they learned the most from, 42 percent said the reason was that it helped them understand the course material. However, with the assignment they were most proud of, only 2 percent said it was because the assignment helped them understand course material. In other words, if the assignment required time and effort, the student got involved in doing the assignment, which caused pride far more regularly than what they learned from doing the assignment.

The authors of the study note, "The findings of this study suggest that in planning a course it might be wise for instructors to balance assignments that simply and clearly elucidate course material with those that demand the time and effort (student complaints not withstanding) to create a prideful experience" (p. 327).

Reference: Pines, H.A., Larkin, J.E, and Murrary, M.P. (2016). Dual outcomes of psychology assignments: Perceived learning and feelings of prideful accomplishment. *Teaching of Psychology, 43*(4), 323–328.

Multiple-Choice Exams
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differences between the numbers of answer options. A meta-analysis of 27 studies (across different content areas and age levels) recommends three options. There's an interesting reason that favors three-answer options. On average, students can answer three-option questions five seconds faster than those with four or five options. That means more questions can be included on the exam. Imagine how popular that will be with students!

"Consistent meaningful feedback (e.g., detailed explanation of why certain answers were correct or incorrect) is an important component of student learning outcomes, enjoyment, engagement in the course and rating of teaching quality" (p. 151), are the findings of another study referenced in the review. This argues for more than posting the right answers on the professor's office door or on the course website. The authors recommend an interesting way of providing this high-quality feedback, which is giving students opportunities to self-correct. Research shows that students who were allowed to turn in a self-corrected midterm performed better on the final than students who weren't given this option. Both the in-class (or online) exam and the self-correct exam are scored. Students earn full credit if the answer on both exams is correct, partial credit if the question is missed on the in-class test but corrected on the take-home version, and no credit if it's wrong on both tests.

As these highlights illustrate, this is an article packed full of good information. Students take tests seriously. We need to do our best to make those exams fair and accurate measures of learning.

Reference: Xu, X., Kauer, S., and Tupy, S. (2016). Multiple-choice questions: Tips for optimizing assessment in-seat and online. *Journal of Scholarship on Teaching and Learning in Psychology, 2*(2), 147–158.

Interviews
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long. If you need more time, don't run over; instead, schedule a second interview. Use a stopwatch or timer to stay on schedule.

- **Maintain focus**: Use your time well. Eliminate distractions. Appropriately limit pleasantries and chit chat. Maintain eye contact. Call students by name. Ask engaging questions.
- **Keep grading simple**: Consider creating self-assessment rubrics for students to complete and submit prior to their interview. Assess their performance during the interview. You could also assign one of three grades: pass (student was on time and prepared), marginal (student was late and/or unprepared), and fail (student did not schedule or attend their scheduled interview).

We have found that interviews benefit us as well as our students. They can help us more accurately assess students' learning and performance. In some courses, providing immediate face-to-face feedback takes less time than preparing written critiques of student work. Problems and misunderstandings can sometimes be identified and resolved before they become larger issues. Unlike static written assessments where one format must fit all students, interviews provide an increased opportunity for on-the-spot tailoring and adjustments. Interviews are also a good way to get to know your students better.

We recognize that incorporating student interviews can require significant time and effort, which means that interviewing is not always feasible or appropriate. But these are interactions that students value and learn from. Our experience, which is supported by student evaluation comments from many years, is that the time and effort needed for student interviews are investments worth making.

Student-Generated Research Questions

Students and questions: it's a topic written about with some regularity in this publication (and on the Teaching Professor Blog, for that matter). The concern starts with the quantity and quality of questions students ask in courses, but it goes beyond that, as Mara Brecht discovered in a major's capstone course.

Like many capstones, this one required an independent research project. It was a small class of eight students that allowed the instructor "to teach the research process more slowly and methodically" (p. 299). She started early in the semester by asking each student for a brief description of their research area, including the research question they were considering. What she got were proposals that fell into one of two categories. Either the idea was so broad that there was really no point of entry, or the idea was so specific that all the research could do was "prove" the point. Class size made it possible for her to meet with each student individually, and those interactions revealed a significant disconnect between how she taught and talked about research and students' perceptions of it.

Students with very general projects said they couldn't be more specific: "How am I supposed to know what I'm going to talk about until I do the research to know what I'm going to talk about?" (p. 300). Those with the specific proposals were equally perplexed: "I thought my capstone project was supposed to be thesis-driven" (p. 300). After some further reading and reflection on research in her humanities discipline, Brecht came to understand the problem: "My students did not question. Either they identified topics but were unable to ask the kinds of questions about their topic that would lead to a hypothesis, or they produced hypotheses without first articulating questions that these hypotheses ostensibly answered" (p. 300). Her teaching hadn't given students the opportunity to practice questioning.

That was the problem with how Brecht had been teaching the research process. There was also an issue with how she talked about it. She shared with students her conviction that "research is dialogue," that scholars talk to each other through their writings (p. 301). She says, "When students research, I tell them they participate in an authentic academic dialogue" (p. 301). Their research projects are about creating truth. (It's a theology and religion capstone.)

Brecht makes a strong case for doing the project online as opposed to simply passing around a sheet of paper. The technology supports how students are used to conversing with each other.

She exclaims, "Talk about romanticizing!" (p. 301). Those meetings with students revealed that what she thought was a pep talk the students heard as intimidation. She states they heard: "The project had better be good enough, and you had better be smart enough to do it!" (pp. 301–2). Additionally, the students did not get the conversation piece. They thought that they had to work on their project alone, that the thoughts, ideas, and even others' questions had no place in their research.

She decided to change both the teaching and the talk about research with an activity focused on question generation. She started with a Google document that contained a statement for each student. "Megan would like to learn about . . ." The students she named then filled in the blank with a place, person, time, object, idea, or process they were interested in exploring. Then each of the seven other classmates posed a question below each of the statements on the Google document. Using their starter statement and the seven questions, each student classified their classmates' questions using a field-specific classification system. From that they generated three of their own questions and then classified and evaluated them. Brecht includes a number of examples in the article that clearly show movement in the direction of good research questions.

Brecht makes a strong case for doing the project online as opposed to simply passing around a sheet of paper. The technology supports how students are used to conversing with each other. And she believes there was another benefit: "The online questioning activity created transparency in the student research process and . . . ultimately led to greater trust among the class" (p. 305). A student comment supports this conclusion: "I found this exercise was very helpful because a multiplicity of questions and topics are now out in the open and I am more likely to reach out to fellow classmates to talk about our topics, as well as for feedback throughout the research process" (p. 305).

The activity described in the article is a good example of an approach that helps students discover some important lessons about questions. As the author notes, if the class is large the same activity could be done with groups of students working on each other's questions. In addition, the article is commendable for its honest and constructive exploration of a skill students are missing. Instead of blaming students for what they didn't do, the teacher consults research and uses it to reflect on how her teaching might be contributing to the problem students are experiencing. And that's followed by a creative solution. It's a good piece on scholarship on several different fronts.

Reference: Brecht, M. (2016). Collaborative questioning through digital media: A strategy for catalyzing student research "conversations." *Teaching Theology & Religion, 19* (3), 299-308.