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Abstract

Story-telling is frequently a lost art in the engineering classroom. Often, engineering educators feel that telling stories is a distraction to communicating the necessary content of a course. In contrast, this poster describes story-telling as an improvement to traditional teaching techniques.

An Example Story

- **The Topic:** I do group work in many of my classes. Many times, the students are accustomed to working in a competitive environment, rather than a cooperative environment. Therefore, they are often not well-equipped to work with fellow students. This lesson is about working in groups. In a non-story environment, the teacher might say that working together is important because it is the best way to gain a comprehensive solution.
- **The Story:** I was visiting my grandparents once. As a result of being married for over fifty years, they had developed the science of the debate to a fine art-form. As I walked into the living room of their home, my grandparents were sitting in their usual chairs in opposite corners of the room. I was wearing one of my favorite shirts at the time that had Y-A-C-H-T spelled in a semi-circle across the top of the sweatshirt. Because my grandparents were sitting in opposite corners of the room, my grandmother could not see the 'T' on my sweatshirt and my grandfather could not see the 'Y' on my sweatshirt. My grandmother asked me "Honey, what is a 'YACH'?" My grandfather said "Sylvia, the shirt says A-C-H-T. The word is 'ACHT', not 'YACH'. By the way Sonny, what is an 'ACHT'?". At this point they began the first debate of the day.
- **The Lesson:** Clearly, we operate in a world of partial knowledge. We often have only a portion of the complete knowledge that is necessary to solve a problem. Often times, the knowledge that we have overlaps with someone else's partition of knowledge. When confronted with the other partition, we can either insist that the other person is wrong or use each other's partial knowledge to come up with the global, correct solution. I will often use an example exercise where each student in a group is intentionally given partial knowledge of the solution, but the group is required to develop a global solution.

Why use Story-telling?

- To illustrate important points
- To give coherent meaning to seemingly divergent topics
- To aid students in remembering content;
- Or, simply to break up a long lecture.

Dos and Don't of Storytelling

- Don't confuse stories with history. If you are using history, then by all means make sure that the history is factual and accurate. But, if you are telling a story to illustrate a point, then do not get bogged down in detail.
- Do stick to the important parts of the stories. Many stories (and story-tellers) die a lingering death by adding too much attention to irrelevant details of the story.
- Do ask for student's inputs. As with other techniques, it is recommended that teachers occasionally ask for student feedback. I ask at least once/semester if the stories are helping.
- Don't begin a story with "I was so drunk once that I ...". While stories about our personal lives are often relevant, there are places where we just should not go. A teacher must remember to keep a professional distance from the students at all times and not discuss stories that are inappropriately personal.
- Do be sincere. Telling stories from the heart are OK. Every semester, I tell my students how I met my wife (at the Cincinnati airport). This is a wonderful, sappy story about a random occurrence leading to a lifetime commitment. The students (both men and women) love the story.

Summary

Story-telling is another tool that should be in the repertoire of every college faculty. Along with many other teaching techniques, story-telling can make a richer, more interesting environment for teaching and learning. As mentioned, story-telling may be used effectively to illustrate important points, give coherent meaning to seemingly divergent topics, aid students in remembering content, or simply to break up a long lecture. Often, faculty fear techniques that we interpret as divergent from the core course material. However, story-telling can often be used to complement, rather than detract from, the course content that we are attempting to communicate to the students.