

Demonstrated the importance and significance of the subject matter

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Why this Teaching Method Matters

On the first day of class, students arrive with a great sense of expectation and a range of emotions. What will this course be like? What am I going to learn? Is this going to be boring? As teachers, we love our content, think that it is important, and believe students will benefit from having taken our courses. Realistically, though, we know that not all of our students will share this perspective. We also know that if we want our students to learn, we must somehow engage them in course work and empower them to take responsibility for their learning. We must create conditions that promote intrinsic motivation

Researchers and educators since John Dewey's time have studied and tried to identify those factors that contribute to student motivation. While intrinsic and extrinsic rewards and social opportunities play a part, the thing that motivates most learners is the usefulness of the information and its potential for impacting others (1). Indeed, research on IDEA (2) has shown that students' initial motivation to take the course, regardless of who

taught it, is an important predictor of teacher and course ratings and student learning. This relationship provides a great opportunity for teachers to capitalize on that interest but it also offers a challenge to teachers whose students are less interested in the subject or course. Thus, it behooves teachers in both situations to demonstrate the relevance and significance of the subject matter from the first day of class to the last. We can stimulate interest by both showing our students the content's real-world connections and by involving students in activities that inspire creative applications. Item #4 is most strongly correlated with teacher behavior items related to involving students (items 1 and 3), communicating clearly (items 6 and 10), and stimulating or inspiring students (items 8, 11, 13, and 15). In addition, Item #4 correlated with learning objectives focused on basic and advanced levels of cognitive knowledge and on interest in life-long learning. Reviewing your ratings on these items will help you determine students' views of the relevance of your course.

Applying this Teaching Method in the Classroom

Showing real-world connections and involving students in activities that inspire creative applications are strategies grounded in both constructivist theory and theories of motivational design. Constructivist theory (3) says that learners should engage in authentic and situated activities within a community of learners so that they can make connections between existing knowledge and new content. Keller's MVP (Motivation – Volition – Performance) model (4) focuses on creating conditions that emphasize the utility of instruction for current and future uses, and linking content to students' prior experiences, needs, interests, and motives. These conditions promote voluntary, self-regulatory behaviors that enhance learning and performance with subsequent intrinsic motivation that increases students' perceptions of the value of the subject matter and their desire to learn more about

it. Combining the theories and translating them into practical, relevant, classroom experiences requires the use of varied active learning strategies. For example, use case studies, simulations or individual/group problem solving exercises; include interaction with experts; and ask students to apply new knowledge to familiar and to new situations. Such activities can demonstrate not only how, but why the content, classwork, and assignments are important and useful.

Case studies and simulations offer students the opportunity to be actively involved in solving real-life, open-ended problems that have potential for provoking extensive research, discussion among and between classmates and teacher, contributions from career and life experiences, and critical thinking (5). Another relevant activity

is student interviews of guest speakers, whose credibility is enhanced by their experience in the trenches. Avoid the typical protocol of having the speaker simply arrive, speak, answers questions, and leave with little preparation or follow-up from the students. Make this a more active learning experience by defining students' roles in learning from the visitor. Before the speaker's visit, have students learn more about the topic. Have each student prepare a list of questions, share those questions in small groups, and select a set of them to be posed by a student-selected panel. After the presentation, have the panel interview the speaker. All students should be making notes both during the speaker's presentation and during the panel discussion. After the speaker leaves or before the next class, have students reflect upon the guest's thoughts and connect these to the session's objectives, students' experiences, and the implications for upcoming course topics. Applying new knowledge, especially in relevant and meaningful situations where the impact of the activity is visible and tangible, is perhaps the most powerful way to demonstrate the importance of course content. It is not always obvious which situations students will find "relevant and meaningful." It can be helpful to ask your students about their personal and professional interests. The answers can inform subsequent assignment designs. Alternatively, giving students the freedom to select problems of personal relevance that connect to course content can satisfy their desires for autonomy, an ingredient in intrinsic motivation (6). This strategy also demonstrates to students, the relevance and importance of outside class assignments, and when students value the time they spend preparing for class, their ratings of teacher and course go up because the relevance of their work is demonstrated and linked to learning (7).

Other approaches include the use of content with emotional impact; presenting conflicting evidence and opinions, and connecting ideas across disciplines. For example, brain and learning research (8, 9) has shown that emotion and learning are strongly linked simply because the sequence of brain functions first filters new information through centers that involve emotional responses. The objective is to get students' attention and engagement. Introducing ideas using stories, drama, humor, demonstrations, media, simulations, or role playing can capture the opportunity to quickly engage students, and following up with the presentation of conflicting ideas can continue that engagement at a deeper cognitive level. Demonstrating implications and applications of the ideas further emphasizes that content exists to be used in practical and important ways.

Involving students in the kinds of activities described

above helps address the issue of content relevance, or significance, in your classroom. Demonstrate to students that what they are learning can be applied, and that as they find ways to use knowledge to create new ideas, plans, operations, or designs they are building important repertoires of high-level skills. Content becomes relevant not only because there is a link to real world situations, but because it can be the key to effective, enhanced performance not only in the classroom, but in the workplace. If students understand that they can use the knowledge and skills they have gained to better themselves and the lives of those around them, they will feel a sense of empowerment and will be motivated to learn.

Applying this Teaching Method Online

While online situation pose contextual differences, the essential importance of, and strategies for, demonstrating the relevance of content are the same. Ongoing discussion groups using course management systems, social networking, and other mechanisms allow both real-time and asynchronous collaborations among students and with the teacher. In online situations, frequent, clear communication about course objectives and requirements is critical. Video-conference tools can considerably reduce the sense of isolation that is often a concern in distance education. You can also address questions, have additional opportunities to demonstrate relevance, and support students for whom the technology may be daunting (10, 11).

Many online students are working professionals, and so opportunities to tie instruction and content to the workplace abound. Learners can use workplace tasks, projects, and situations as raw material for discussions, group projects, and contributions to each other's learning and work.

You can locate examples of how content is brought to bear on real-world issues, or, even better, you can have your students search for and share such examples. Incorporate these examples, particularly the ones shared by students, into discussions, assignments, and assessments. The more you do this, the more your students will adopt deep approaches to learning (12) and the better will they be able to craft creative solutions to real-world problems.

Assessing this Teaching Method

Assessing the learning that results from students' participation in relevant, authentic activities in the classroom requires the use of different measurement techniques than those typically used to assess learning. Authentic tasks require authentic measurements (13). Authentic measures typically include observational techniques and the use of checklists, rating scales, and rubrics. For example, since using a case-study approach implies that you are interested in not only the solution students produce, but also the process by which they arrived there, it is desirable to know the steps students took to solve the problem. One method to assess students' problem-solving skills is Angelo and Cross' classroom assessment technique (CAT), "Documented Problem Solutions," wherein students describe each step of the process (14).

Another useful tool is a case-study rubric described by Myers and Jones (15). As for assessing students' learning in the guest-speaker experience, consider another CAT, "RSQC2." Students Recall meaningful points, Summarize the most important into one sentence, note Questions not answered, Connect the main points with objectives and the course, and Comment evaluatively on

the experience. Utilizing these techniques in conjunction with other teacher-made, observational tools provides you with information you need to evaluate the quality of students' learning and their feelings about the significance of the subject matter.

In online situations, assessment techniques may have to be adapted. For example, the "minute paper" described in Angelo and Cross (14) could become an instant "Twitter" discussion because the length of minute papers fits that mechanism well. More involved assessments could still rely on both synchronous and asynchronous mechanisms that could enable group projects, the location and incorporation of additional material supplementing course content, and the creation of mediated products such as streaming videos from the workplace, interviews at and tours of workplace settings that demonstrate the application on content, and other activities using technology to demonstrate how students have applied content. The critical element in both settings remains the alignment of instruction and assessment in ways that demonstrate applications, problem-solving, and the creation of new uses for what is learned.

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