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Pay It Forward: What It Means to be a Respiratory Therapist

(A Memorial to a Former Student)

by Bill Croft, MS, RRT, RCP, program director, Sandhills Community College, Pinehurst, NC

Most people recognize the phrase, "Pay It Forward," as the title of a movie. The film originated with a unique, moving novel about the challenges one little boy faces while trying to change the world. The book is full of genuine sentiment and gives the reader a glimpse of what it might be like to live in a world in which we all could thrive.

The concept of "Paying it Forward" begins in the mind of a 13-year-old named Trevor. His social studies teacher asks the class to think of one idea that will change the world – and then implement it. This movie is about karma, what goes around comes around, and doing unto others. These concepts are all readily accepted by society in some form or another. If someone does something for you, society teaches that you should pay them back, in some fashion.

This "paying it forward" attitude could start a revolution within respiratory care, if more respiratory students, therapists, managers and educators approached their careers in this manner. Although there are no monetary

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Diagnosing Learning Difficulties in Non-Native Speaking Students

by Ellen A. Becker, PhD, RRT, academic coordinator, respiratory care, Brooklyn Campus, Long Island University, Brooklyn, NY

I recently had the opportunity to work with many students with English as a secondary language who were experiencing academic difficulties. I routinely gave these students my lecture notes and personally asked those who were having trouble to come in for additional help. Those who were doing well seemed to have developed certain strategies: they taped my lectures and listened to them two or three times to ensure they understood the information, they studied harder and they studied with other students. I had some success with a handful of the others, but there were many I could not reach, even though they appeared to have the desire to learn. It occurred to me that I was unable to diagnose the specific learning problem for each student and therefore, unable to provide a targeted intervention.

One day in the library, I came across a book chapter that addressed factors influencing listening and reading comprehension.1 Examples of student variables affecting listening comprehension were the scope of the student's vocabulary, ability to break sentences into understandable units, ability to make inferences, ability to recognize a break in comprehension and ability to summarize major points made during a conversation or lecture. Sample student variables affecting reading comprehension included knowing the variety of ways a word can be used, being accurate and automatic at word recognition and being able to read orally with expression.

These ideas spurred my thinking. Students with poor reading comprehension will not receive the maximal benefit from their textbooks. Therefore, they need to rely on other resources until their reading comprehension skills improve. Lectures help these students by providing auditory and visual clues to points of emphasis - clues not available through written text. However, students with English as a secondary language may not be able to decode the language quickly enough during a lecture to get the information transcribed into their notes. Tape recording the lecture provides them with the opportunity to hear important parts again and accurately transcribe key points into their notes. Studying with other students allows them to practice their listening and comprehension skills. In addition, they are often more comfortable asking a classmate to stop and provide clarification than interrupting an instructor in the classroom.

These tactics made a lot of sense to me, and I immediately thought of a particular student who could benefit from them. Although I had given her advice in the past, I had not been able to explain why my advice was relevant to her specific learning needs. After I did so, she began recording lectures and working with other students. Her exam scores improved significantly. She adopted the suggested strategies and spent extra time studying because the strategies made sense to her. ◆

REFERENCE

1. Samuels, S. J. (1987). Factors that influence listening and reading comprehension. In R. Horowitz & S. J. Samules (Eds.), Comprehending oral and written language (pp.295-325). San Diego: Academic Press, Inc.

Notes from the Editor & Chair

by Fred Hill, MA, RRT, and Susan P. Pilbeam, MS, RRT, FAARC

This edition of the Bulletin is full of good information, so we're deferring any lengthy comments to save space for articles. We hope you enjoy these important contributions from your peers. ◆

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Incorporating Problem-Based Learning into Allied Health Curriculums

by Thomas Striplin, BS, RRT, RPFT, clinical director, respiratory care, and Ester Verhovsek, MEd, RT, program director, radiology technology, Allegany College of Maryland, Cumberland, MD.

The current view in higher education is that we should focus on student learning rather than teaching in order to improve students' college experience. The shift from teaching to learning has been endorsed by many prominent leaders and theorists in higher education since the mid-1980s.1 The idea of focusing on learning rather than teaching requires that we rethink our role and the role of students in the learning process. To focus on learning rather than teaching, we must challenge our basic assumptions about how people learn and what the roles of a teacher should be.1 We must change the culture we create in the courses we teach. In other words, we must experience a paradigm shift.

In the learner-centered paradigm, students construct knowledge by gathering and synthesizing information and integrating it with the general skills of inquiry, communication, critical thinking and problem solving. The instructor's role is to coach and facilitate at the point where teaching and assessing are intertwined. Thus, everyone learns together.

"Students learn better when engaged in a team effort rather than working on their own … it is the way the world outside the academy works," says a report from the Education Commission of the States.2 Unlike conventional methods of instruction, where students are often graded on a competitive basis, learner-centered classrooms provide opportunities for students to work together and develop their skills in teamwork and cooperation. As students talk about what they know and are learning, their knowledge and understanding deepens.

Traditional educational paradigms emphasize instructional delivery as a primary source for learner information. Problem-based learning (PBL) is an instructional method that utilizes class discussion groups and promotes independent and team learning skills. PBL methods place the learning objectives on the student, with the teacher acting more as a tutor or facilitator. Students must engage as both independent and team learners to develop critical thinking and problem solving skills. In short, PBL helps learners become integral and conscious participants in their learning processes by having them recognize both individual responsibility and ownership within that process, and by having them become interactive partners with the teacher.

What makes PBL so different from traditional classroom instructional delivery? First and foremost, it is harder to develop and implement than a pure instructional delivery format. A great deal of time must be invested in developing problems that will incorporate cognitive, affective and psychomotor domains. A PBL problem challenges the learner to decide which types of information must be gathered and learned in order to develop a solution. In traditional learning paradigms, students typically receive instructional information first and then are asked to solve the problem; PBL works somewhat the opposite way.

Why should an allied health program consider adopting PBL as a viable instructional method? One simple answer is that it can be incorporated at any level of the instructional sequence. For example, at Allegany College of Maryland, a Fund for the Improvement of Postsecondary Education (FIPSE) grant has led to the development of a problem based curriculum targeted at developmental math students who are pursuing careers in allied health. According to Maureen Swogger, RN, who is part of the FIPSE grant faculty at Allegany College, "The incorporation of allied health math modules in a PBL format allows students to be exposed to principles and calculations that they will actually have to use in their curriculums later on."

The project involves all levels of allied health programs so that students entering the allied health field and completing the developmental math sequence will be exposed to related math principles within their disciplines. For example, our respiratory students in developmental math are exposed to pulmonary function tracings and asked to extrapolate values using valid math techniques. In the same manner, radiologic technology students are exposed to x-ray dosage calculations and nursing students are exposed to drug calculations.

Relating math instruction to a student's future discipline is a valuable way of increasing student retention and learning. If students can be taught principles in their general education classes that will later apply directly to practice techniques, learning should be more stimulating and rewarding. Exposing students to PBL principles early on also makes the allied health faculty member's job easier once the student enters the program. Students who have already been exposed to homodynamic math calculations or physiologic calculations such as dead space to tidal volume ratio (VD/VT) should have a better grasp of the principles being taught. Research suggests that "the more time and effort students invest in the learning process and the more intensely they engage in their own education, the greater will be their growth and achievement, their satisfaction with their educational experiences and their persistence in college and the more likely they are to continue learning."3

Assessment techniques also need to be incorporated to help students become more effective learners. Angelo and Cross have developed a number of classroom assessment techniques (CATs) to help faculty better understand and promote learning.4 These techniques increase our ability to help students become more effective, self-assessing, self-directed learners. The quality of student learning is directly, although not exclusively, related to the quality of teaching, and to improve the effectiveness, teachers need first to make their goals and objectives explicit and then receive appropriate and focused feedback early and often.

Levine and Cureton characterize today's students as members of a transitional generation, much like the young people at the beginning of the Industrial Revolution, because the world in which they live is undergoing fundamental change.5 As our society is being transformed, we must develop a new education program that will prepare our students to live simultaneously in two societies, one dying and the other being born. Our current students need a curriculum that prepares them to assume the enormous responsibilities of building a new world while living in an old and rapidly changing society.5

The benefits of infusing PBL into a curriculum are endless. Math, Science, and English are just a few of the general education courses that could utilize PBL to integrate learning between curriculums in allied health. Allied health programs are challenged to incorporate PBL scenarios and modules directly into their own curriculums. It is imperative that allied health students develop information-gathering skills that encourage self-motivation to problem solve.

Learning to take the initiative to learn is the first step in the solution of any problem. Health care is a dynamically challenging environment that requires both individual problem solving skills and team/network problem solving capabilities. PBL lays a good foundation for the acquisition of these skills, and it is a great way to incorporate aspects of learning not normally taught in traditional curricula today. ◆

REFERENCES

1. Huba, ME & Freed, J E (2000). Learner-centered assessment on college campuses: Shifting the focus from teaching to learning. Needham Heights, MA: Allyn & Bacon.
2. Education Commission of the States. (1996, April) What research says about improving undergraduate education. AAHE Bulliten, 5-8.
3. Study Group on the Conditions of Excellence in American Higher Education. (1984). Involvement in learning: Realizing the potential of American higher education. Washington, DC: National Institute of Education.
4. Angelo, TA, & Cross, KP (1993). Classroom assessment techniques: A handbook for college teachers. San Francisco: Jossey-Bass.
5. Levine, A, & Cureton, JS (1998). When hope and fear collide: A portrait of today's college student. San Francisco: Jossey-Bass.

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PAY IT FORWARD:
WHAT IT MEANS TO BE A RESPIRATORY THERAPIST

rewards for this approach, those who implement it would experience more satisfaction on the job and gain more respect as professionals. There is an old saying: “people do not care to know what you know until they know how much you care.” Imagine that everyone suddenly wanted to help everyone else succeed in their careers. Our major “problems” then would be a low turnover in our field and more responsibility, rather than the shortages we face today and our insistence on fighting every turf battle that comes along. We might also see more people advancing their education, credentials and professional activity. I was recently reminded of the importance of this concept when a colleague, friend and former student passed away.

Like most students entering our field today, Tim Oxendine was working on his second career when he entered my program at age 29. Although he struggled at times to get through school, he was extremely motivated to excel. He graduated on time with average grades, but he felt that he could have done better and promised me that he was committed to doing bigger things with his life. When most students say this, they usually mean that they will continue their education and get out of respiratory care, but not Tim. He wanted “to be in it for the long haul.”

Several years following graduation, he came to me and said he wanted to give back to the field that had given him so much. He felt that respiratory care saved him from being a failure. I quickly reminded him that he was the one who did all the work. We simply provided him with the tools to improve his life. Our discussion then progressed to what he really wanted to do with his life. He said that he always wanted to be in business for himself and asked me for advice about areas in respiratory care that would fit in with that goal. I gave him some resources, and home care and sleep studies seemed to interest him the most.

Six months passed, then one day he was standing at my office door. “I did it! I opened my own home health business,” he said. This really excited me because I had never had a student make this leap of faith. But I was confident that he could make a success of the venture. His enthusiasm was inspiring - although I was also a little envious in that I did not have the intestinal fortitude to do such a thing myself.

Over the next few years we spoke often regarding his desire to repay “his debt” to the field. Since his business had grown to three locations, he felt he could at least help financially. So, he began donating scholarship money to my former program and equipment to my current program. He was very persistent about helping in any way that he could.

Later, when I became president of our state society, he called me up to donate more money for student scholarships and disaster relief. (Although he wanted to remain anonymous, I feel that he would not mind me disclosing this fact now.) I cannot express how I felt about his acts of generosity. He said that the money was nothing and he wanted to do more to contribute to the field. He wanted to become active in influencing respiratory care at a state level. This resulted in his appointment to our new licensing board. Again, I was

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NOVEMBER IS COPD AWARENESS MONTH

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extremely proud to call him a former student. Over the next few months, he worked extremely hard, helping develop the rules for the newly formed board. But then tragedy struck. Tim was diagnosed with a glioblastoma multiforme brain tumor, which had already progressed to stage 4. The prognosis was poor. I immediately called him to talk about his situation and help cheer him up. To my surprise, he sounded upbeat. His positive attitude in the face of adversity told me a lot about his character.

During our discussion, we spoke of the good times and the bad times - but mostly the good. He thanked me for what I had done for him over the years. We laughed and joked as if nothing was wrong. Funny thing, I had called to cheer him up, but instead he was cheering me up. Before hanging up the phone, he said, "Even though I found peace with myself through salvation, I am going fight this problem." I encouraged him to fight it with everything he had.

Unfortunately, Tim lost his battle one week later, just before New Year's. He died with his loving family at his side. He leaves behind his wife, Becky, and four children, Ashley, George, Benjamin and Carly. He also leaves behind many friends and colleagues who benefited from his life's work.

"Pay it forward" aptly fits Tim. He paid it forward many times over the years and continued to do so until the day he died. He paid it forward to me by reminding me of what it means to teach and what it means to be a respiratory therapist. I would encourage each of you to ask yourself: How could I make a difference today, tomorrow and the day after that? How could I make our profession better, stronger?

Tim Oxendine, AAS, RRT, RCP, knew how: His philosophy was simple: just do it: Pay It Forward! ◆