

**ENHANCING AND MEASURING
STUDENTS' COMMUNICATIONS SKILLS
IN
TWO DIFFERENT LEARNING ENVIRONMENTS**

A matter of asking the right questions

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ABSTRACT

This is a paper about enhancing and assessing students' communications skills in two new higher education learning environments--the newly-transformed traditional classroom environment with its new technology tools, and the distance learning environment that includes online college courses and degree programs. There is sufficient new evidence that as these two new environments take the place of the traditional old classroom and its pedagogic teaching methods, students' communications skills have become increasingly important and at the same time somewhat questionable. The paper presents a logical approach for assessing the impact of these new learning environments on students' communications skills by using a series of four distinct types of questions. By classifying and properly ordering the questions asked, teachers can systematically move from situation to problem to implications to need-payoff and arrive at answers that as yet have not been addressed. The paper concludes that when academics are able to ask and answer these questions, they will be truly able to structure and balance the use of the new learning environments, to arrive at better student communications skills. The result will inevitably be more effective learning experiences, enhanced learning outcomes and more relevant, more survivable schools in the ever-changing complex world that demands that the teachers of today become effective teachers tomorrow.

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INTRODUCTION

This is a paper about enhancing and assessing students' communications skills in two new higher education learning environments:

The newly-transformed traditional classroom environment

Today's classroom--the same room as before--has been transformed by new technology tools that enhance teachers' presentations of course material and students' presentations of data and research delivered as audiovisual or written reports. The transformed classroom still supports eye-to-eye Socratic teaching methods, but it now offers students and teachers the opportunity to communicate better through prepared presentations delivered from a computer and projected from an LCD projector. With a little practice, a good teacher can use these tools interactively to create dynamic real-time learning experiences.

The distance learning environment

Electronically-delivered lectures and courses (and in some cases, entire degree programs) enable students to receive and send complete course information via the internet, phone lines and specially-made videos. The distance learning environment enables students to complete educational programs that would otherwise not be available due to schedule, location and sequence constraints. Although distance learning is not usually a "realtime" event, many teachers are able to design excellent "distance" courses and stimulate excellent student communication despite the lack of eye-to-eye contact. The largest single growth area in higher education today is the adoption by many schools and employers of distance learning courses in place of traditional classrooms.

The US Army recently announced its new education program to help millions of soldiers earn college degrees and certificates through a global system of online distance learning. According to a

July 10, 2000 article by Richard Cooper of the Los Angeles Times, the new system will offer educational opportunities from a consortium of colleges. The Army will provide soldiers with computers, printers, textbooks and internet access. This six-year \$550 million program, entitled "Army University Access Online" is designed to enable new recruits or veteran soldiers to earn degrees in four years from the schools of their choice no matter where they are stationed--even Bosnia. Cooper quotes a senior Army official who admits that "this is a both a recruiting and retention initiative," designed to face mounting difficulty in keeping their ranks filled with high-quality volunteers despite greater competition for talent in the job market and increased emphasis on advanced education.

The Army is somewhat of a late arrival to online courses. As of January, 2000, there were more than 500,000 Americans enrolled in degree-granting college programs via the distance learning environment.

The predictions were on target

A number of educators and writers have written predictive books and articles about the onslaught of distance learning as a mainstream college environment. In his 1992 book *School's Out*, Lewis Perelman questions the survivability of traditional institutions of higher learning in the new "electronic classroom" environment. In a 1997 article in *Forbes Magazine*, Peter Drucker stated that "College education as we know it is threatened," in a strong warning that higher education faces formidable

challenges to its very survival. A hard-hitting 1995 *Financial Times* article about the changing academic environment by Michael Prowse predicts that "Modern electronic technology could mean that the days of academics at higher-education institutions are numbered." David Rothenberg, in a 1997 article in *The Chronicle of Higher Education*, describes "How the Web Destroys the Quality of Students' Research Papers."

A balanced approach

Most educators agree that a balanced use (not a compromise) of these two learning environments can overcome the problems inherent in each, and achieve ideal results. But in both of these new environments, students' communications skills make the difference between a truly successful learning experience and a boring one-way discussion.

So much for the ideal; it still remains the teachers' role to evaluate their learning environments (both classroom and electronic) to insure that these new environments are actually enhancing student communications skills.

To a great extent, it's all about asking the right questions.

FOUR CRITICAL QUESTIONS

Neil Rackham's best-selling 1988 book, *SPIN Selling*, describes his research-based findings about an effective method for selling services and products. Neil Rackham is not a salesman-turned-author, but a respected research psychologist who is basically concerned with human behavior. Rackham's

research revealed that contrary to traditional thinking that stressed effective closing skills, the success of a sales effort depended much more on the investigating stage of a typical sales effort. Rackham insists that persuasion always begins with asking the right questions about the business environment of a prospective client. To that end, he tested and evaluated a series of four types of question designed to indicate whether one was actually communicating with the client and then get the client to discover and communicate his real needs--rather than just his perceived problems.

Teachers are indeed sellers of knowledge, whose ongoing relationships with their students is critically dependent on the proper use of communication skills by both teachers and students. Again, most educators agree that much of higher education is learning how to ask the right questions. For this reason, much of the learning and understanding is achieved through legitimate research by students wherein they go outside the classroom (or electronic classroom) and evaluate theories, hypotheses and newly-introduced methodologies--by asking questions. Masters' theses, doctoral dissertations and Graduate Research Projects are intensive efforts to arrive at good conclusions by asking questions and evaluating responses. The "scientific method" depends not only on proper construction of the research, but on the student's ability to ask the right questions.

Likewise, evaluating a teacher's learning environment depends not only on construction of the course materials, but on the teacher's ability to ask the right

questions about that environment. Using Rackham's four "SPIN" questions, this paper provides insight into ensuring a learning environment that meets today's critical demand for effective student communications skills and evaluating those skills on a day-to-day basis.

Briefly, "SPIN" is Rackham's acronym for the four types of question he believes are necessary to evaluate a potential client's understanding, cause the client to discover his true needs and communicate them to the salesperson. Substitute the words "student" and "teacher," and we have a logical format for asking the same types of question in an academic environment:

S	The Situation
P	The Problem
I	The Implication
N	The Need-payoff

The Situation

To teachers, the first questions that come to mind in this category are mostly about the sort of things that are happening in their schools. "Situation" questions include:

1. What changes do we see in our students' communications skills and study habits?
2. How do these changes affect learning?
3. Which of these skills are increasing, generally? Which are declining?

4. How does each of the two learning environments affect these skills?

Looking toward the larger environment that academe must serve, we see implications for business and the nonprofit arenas that inevitably must rely on the ability of higher education to prepare their future managers, designers and constructors.

As the demand for qualified professionals increases, employers (including the military) are dramatically concerned about having the best people they can find--as soon as possible--to meet their business goals and objectives. When employers finds that higher education does not offer the kinds of person they need, they turn to either specialized training schools or internal training programs that can deliver "better" people faster and cheaper. "Better, faster, cheaper," a well-known description of customer demand, has become a real need when a company is seeking to employ qualified professionals today.

Higher education's ultimate goal is preparing people for life, much of which involves professional life. Like all systems, higher education is demand-driven; it provides courses and programs that students want because the courses will give them the knowledge and skills they believe will satisfy some personal desire or need. The "situation" for higher education, therefore, is inextricably tied to students' needs and wants, as perceived by the students themselves, right or wrong.

The "situation" is about what students think they need to learn and how they think they need to learn it. In the newly-transformed classroom or via distance learning (or even in the traditional classroom), students will adopt the skills they believe they need to achieve learning objectives for advancement in the university or in the future use of the learning. Anything the students perceive as outdated, unnecessary or time-wasting will be cast aside in favor of newer (perhaps even better) methods, no matter what academic disciplines or professional credentials they explore.

At the present time, communications skills are coming under greater scrutiny to determine whether our two new learning environments are actually enhancing those skills. The topic for this paper was not chosen randomly; there is obvious concern that in our high-tech world with high-tech products and methods, the universities are actually delivering the education that present and future employers want their people to get.

The Problem

One thing most agree on is that yesterday's solutions have become today's problems. This is true in business as well as academe. Old methods of business cost accounting, production/inventory management and project scheduling have proven inadequate in a world that wants everything better, faster and cheaper. Likewise, old methods of lecturing and course design have proven inadequate in a world that wants to do a better job, learn how to do it sooner, and do it without paying the inordinately

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increasing costs of a college education. To these ends, students have acquired remarkable new skills in the use of new technology tools; these skills are still improving:

1. Skilled use of word processing software for term reports and homework.; use of grammar and spellcheckers, formatting, tables, graphics inserts and easy-to-edit tools.
2. Skills in searching the web for information not available in libraries and other sources.
3. Skillful conduct of legitimate internet research that would otherwise be impossible due to time constraints and availability of materials.
4. Skillfully create presentations that are both informative and artistic that reflect good research.

At the same time, considerable concern has arisen about the very things that students use while employing these new tools--perhaps because of changing cultural environments, but also because of the use of these tools themselves:

1. Declining writing and speaking skills; poor sentence and paragraph structures, grammar, spelling, punctuation and vocabulary.
2. Worsening critical thinking and logic skills; unable to "draw the picture," construct models or visualize complex problems in logical parts.

3. Reduced attention spans; poor listening habits and worsening reading ability.
4. Lack of good interviewing skills in both preparation and delivery.
5. Still can't type with all ten fingers; "the keyboard is not my friend."
6. Unwilling or unable to construct outlines before starting to write.
7. Increasing temptation and ease of plagiarizing papers via the internet.

Many of these unfavorable changes can be attributed to the changing American culture--perhaps described by older teachers as "the generation gap," or the "rock-and-roll mentality." To be sure, a lot of these changes reflect a society that doesn't see as much value in accuracy as in expediency. (You know you've arrived in this era when, while hand-writing a note, you scribble a word whose spelling you're not sure of and somehow expect the pencil to spellcheck it for you!) Some of these changes are a direct result of the increasing use of the new technology tools described above.

These are "the problems" that higher education must reckon with today. Academe can only lament the external circumstances (like poor public primary and secondary education) that contribute to poor communications skills. But when circumstances within the new academic environments are part of the problem and can be part of the solution, it makes a lot of sense for teachers to examine these environments in terms of

their effect on student communications skills.

send fewer of its people to the schools they criticize.

The Implication

The implications of student communications skills suggest a number of serious questions from academe and the world at large. From the academic perspective these questions include:

1. Is it important for us to know how our new environments affect student communications skills?
2. If there is a problem, are we part of it? If so, can we be part of the solution?
3. How will communications skills affect our own jobs and futures?
4. How will communications skills affect the world outside academe?

Not unexpectedly, the problems of higher education (any problems, any time) present serious implications for a wide spectrum of effected arenas. Not the least, of course, are the implications for industry, at a time when serious labor shortages are beginning to emerge. This is especially true as skilled managers and operators are needed to turn out an ever-increasing supply of sophisticated new products and services at a time when many older skilled professionals are approaching retirement age. These older persons generally have excellent communications skills, and if their younger replacements lack those skills, industry will seek alternative sources, criticize American higher education for its failure to meet their demand, and

Consequently, students' communications skills can have a measurable effect on enrollments; classrooms with more empty seats generate lower tuition revenues. This has serious implications on teacher hiring and retention, salary offerings and teacher quality in what had been the last bastion of lifetime job security protected by tenure that only a felony could cancel. Teachers know that when students' communications skills decline, their learning suffers, their job potentials decline and eventually the school itself is at risk of shutdown or at least downsizing.

The third implication about student communications skills addresses the students themselves. Assuming that most students really want to achieve a reasonable measure of competence in their chosen disciplines, we must acknowledge that they must also have the communications skills needed to actually learn in those disciplines. It is not just a matter of being a "great communicator" in one's professional career after graduation; it is much more a matter of knowing how to learn. And learning is largely a matter of learning how to ask the right questions (and dealing with the answers). Good communication skills, then, are necessary conditions for learning as well as performing in the competitive world of work and business. The implications of communications skills for students' learning is therefore more immediate and more deterministic than the implications for their future employment or the destiny of the colleges; it will also

be more long-term critical as they pursue their professional lives after graduation.

The Need-payoff

Need-payoff questions are absolutely necessary in any system analysis because it moves the thinking process from problem to solution. The idea of linking the words “need” and “payoff” in this concept is based on the reality that needs, not problems, are what solutions actually supplant. It is also based on the reality that the “payoff” (future beneficial effect) is measurable, tangible and desirable. The secret of success is often simply finding a need and filling it. But it takes logical analysis to determine what to change and what to change to, and then how to cause the indicated change.

It is one thing to see the undesirable effects of an academic problem; it is quite another thing to identify a true need--a core problem at the root level--that is almost always a knowledge inadequacy or an inability to deliver a specific method or means. If students' communications skills are identified as existing problems or suggested by implications for schools, industries or students, then a solution must be much more than some act of making the effects go away. So-called “band-aid” solutions don't work.

Need-payoff questions must be positive in every respect. These questions form the basis for specific actions that change things positively, are constructive and helpful. They ask for conclusions about actions and decisions in tangible terms.

The importance of need-payoff questions cannot be realized without the inputs of the students themselves. Students must be considered first because they are the primary reason for all educational effort in institutions of higher learning and the ultimate destination for most knowledge derived within those institutions. As we have identified earlier, students are themselves a source of some of the problems of student communications today because they come to school bearing the scars of previous academic communications experiences. These problems are solvable, with the proper treatment, if we ask the right questions. Among the likely need-payoff questions about student communications skills, we might find:

1. What specific learning improvements can we bring about if we make certain changes in our policies and methods regarding student communications skills?
2. How will we measure student communications skills in the short term and what measurement tools should we use?
3. What will we do with the results of our measurements?
4. What obstacles and resistance to change might we encounter?

Additionally, some students' communications skills are a function of activities and policies within the schools, including the changing learning environments we are experiencing. Since students only “pass through” these

new learning environments, the teachers who work within these environments must be sources of knowledge about what results in better student communications skills and what doesn't. When we add the broad-based view from within academe to the specific experiences and outcomes of students, we get an intuitive, logical understanding of the real effects of change in any environment. These problems are also solvable, if we ask the right questions. If we address school activities and policies that affect student communications skills, we might find a few more need-payoff questions:

5. What improvements in our own performance will result from specific changes?
6. What can we do within each new learning environment to inspire/require better writing and researching performance from our students?
7. What can we change that will raise students' levels of critical thinking and reasoning?
8. What new levels of performance are needed to bring about improved learning?
9. What precautions and checks should we institute to make sure students are actually doing their own work?
10. Should we measure incoming students' communications skills and provide remedial courses where needed?

11. Should there be a qualification exam before a student begins a program?

Up until now, specific need-payoff questions have seldom been asked. New learning environments are still being conceived and developed; outcomes are as yet unproven and long-term effects are more often the result of conjecture than data-based. Though the problems and implications are known, the need-payoff of our new environments is still being realized.

There is enough intuition from the past to tell us that good student communications skills result in good learning and good future professional outcomes. Many teachers have already had enough experience in the new learning environments to really assess the need-payoff effects of student communications skills. Today's teachers can surely describe the situations, identify the problems and assess the implications for both students and schools when implementing these new environments.

CONCLUSIONS

Quite clearly, students' communications skills are the key to learning how to ask the right questions in their future professional lives. This paper suggests strongly that enhancing student communications skills and assessing their acquisition is best done by a logical process of asking the right questions about the impact of new learning environments on those skills. It is not enough to demand better results, require more intensive research or give closer

attention to legitimate research methods, resource citations and proscribed formats and styles. Besides these actions, it will also require a logical process of analysis that asks the four kinds of questions suggested above.

At the Crossroad

Academe is at a crossroad that, according to some observers and writers, much of today's traditional colleges may not survive. Several years have passed since predictions of doom emerged describing the replacement of the typical classroom with "cyberschools" designed to generate better-educated people in less time for less money. "Better-faster-cheaper" education is desirable, as it always has been. But there are some aspects of traditional classroom teaching (enhanced by new technology tools) that an internet connection cannot replace. While many aspects of learning involve a need for data and information that can be transmitted electronically, there will always be a need for learning events in which true understanding is derived through discovery or invention. Peter Drucker predicts that the schools that survive will be those that can differentiate between these different needs and can provide the appropriate learning environments for each. In his 1997 book, *Critical Chain*, Eliyahu Goldratt comments that "when organizations overcome the respect for a university degree, the real collapse will happen. I wonder how many business schools will survive then."

Webucation?

Perhaps the most intuitive work on the new academic environments appears in a

May 15, 2000 article in *Forbes Magazine* by James W. Michaels and Dirk Smillie, "Webucation-- Some smart investors are betting big bucks that Peter Drucker is right about the brilliant future of online adult education." This challenging discussion of Drucker's analysis of higher education, the "e-learning" race, and the differences between the various learning environments makes this a "must-read!" for all academics.

Which environment?

The challenge begins with determining which courses (or parts of a course) are best served by each of these new environments. When student communications involve gathering data and sifting out information, online methods are very adequate; they allow for easy repetition and self-testing as students accumulate the information needed to answer specific questions and describe specific methods, rules and historical events. In these cases, the required student communications skills include reading, writing specific responses and the ability to use the internet to locate and cite relevant sources pertinent to specific questions. When student communications involve extended discussions and Socratic exercises designed to discover/invent solutions to problems and create new methods, the traditional (enhanced) classroom provides a far better environment. If this is some consolation to the traditional classroom teachers worried that their jobs will be replaced by computers, these same teachers should realize that they are going to have to upgrade their classroom talents to

include the same communications skills they expect their students to possess!

Another clear opportunity (some may see it as a challenge) is that these same teachers will be expected to be able to create distance learning courses and programs. Those whose institutions embrace the “information age” and (hopefully) create a proper balance between what should be delivered in an enhanced traditional classroom environment and what should be delivered in a distance learning environment, and can do both, will be the new “kings of the hill” in academe.

The teachers of tomorrow

This paper is for the teachers of today, who want to be the teachers of tomorrow. If they know how to ask the right questions about their learning environments, the transition from today to tomorrow will not only be painless; it will be eminently successful.

BIBLIOGRAPHY
With brief descriptions

Books:

Dettmer, H. William. *Breaking the Constraints to World-Class Performance*. Milwaukee, Wisconsin: ASQ Quality Press, 1998. The author presents a systematic method of asking questions to solve problems in organizations.

Goldratt, Eliyahu M. *Critical Chain*. Great Barrington, Massachusetts: The North River Press, 1997. A challenging view of higher education that describes many of the problems addressed in the paper.

Perelman, Lewis. *School's Out*. New York: William Morrow, 1992. The author offers some alarming predictions about the survivability of traditional institutions of higher learning in the new "electronic classroom" era.

Rackham, Neil. *SPIN Selling*. New York: McGraw-Hill Book Company, 1988. Presents a systematic series of questions designed to cause clients (students, in our application) to reveal their true problems and provide salespersons (teachers) with the information needed to offer need-payoff solutions.

Articles and papers:

Robert Lenzner and Stephen S. Johnson, "Seeing Things as They Really Are--College Education as we Know it is Threatened (Peter Drucker)." *Forbes Magazine*, March 10, 1997. Another strong warning that higher education faces formidable challenges to its very survival.

James W. Michaels and Dirk Smillie, "Webucation--Some smart investors are betting big bucks that Peter Drucker is right about the brilliant future of online adult education." *Forbes Magazine*, May 15, 2000. A challenging discussion of Drucker's analysis of higher education, the "e-learning" race, and the differences between the various learning environments. A "must-read!" for all academics.

Michael Prowse, "Endangered Species. Modern electronic technology could mean that the days of academics at higher-education institutions are numbered." *Financial Times*, November 20, 1995. A hard-hitting discussion about changing academic environments.

David Rothenberg, "How the Web Destroys the Quality of Students' Research Papers." *The Chronicle of Higher Education*, August 15, 1997. A sobering view of today's learning tools.

Alison Schneider, "Insubordination and Intimidation Signal the End of Decorum in Many Classrooms." *Chronicle of Higher Education*, March 27, 1998. The latest challenge is very scary.