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AERONAUTICAL UNIVERSITY

College of Career Education

Eighth Annual Symposium

On

Teaching Effectiveness

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INTRODUCTION

The faculty of the Extended campus of Embry Riddle Aeronautical University is pleased to present these papers for the eight annual symposium on teaching effectiveness. This annual symposium is conducted to share information and stimulate interest in research directed at teaching more effectively. Each year faculty of the University and other interested parties are invited to submit papers for consideration. The selection of papers for presentation and publication is a blind review by a jury made up of the Officers of the Faculty and members of the faculty Development Committee.

For the past several years the focus of the symposium has been on appropriate and effective use of technology in the classroom environment. This year we start a new thrust, exploring the enhancement of student skills. This symposium has the theme, *Enhancing Students' communications skills Throughout the Curriculum, in both the Live and Electronically Delivered Class.* Our next symposium, in November 2001, will focus on enhancement of critical thinking skills across the curriculum. All readers are invited to submit papers for consideration. A formal call for papers will be issued in January 2001. Questions may be directed to the Chairman, EC Faculty Development Committee.

The ability to communicate well in a variety of venues is one of the needs cited in almost every report of industry advisory bodies made to universities. Communication skills are often a principle diversifying factor between success and mediocrity or failure in many of life's endeavors. The Faculty of the Extended Campus has set as a goal maximizing students' opportunities to obtain critical review of communications skills development throughout their tenure as students.

Apologia: Due to a communication failure (appropriate for the topic) the initial call for papers was of very limited distribution. The subsequent call did not allow some potential participants sufficient time to prepare a paper for submission, thus we have an abbreviated offering this year. It is our intention to return to a format of more papers with the next symposium.

I am sure you will find the papers that follow informative.

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Dr. Gary Schornack, Faculty; graduate school of business and college of business. University of Colorado at Denver. - A specialist in marketing strategy, market planning, sales training and marketing communications. Schornack applies his experience to small business and corporations in the Rocky Mountain Region and the Midwest, mentor's senior executives, teaching senior managers and consulting on research and strategic marketing problems Dr. Schornack is Co-Author of a strategic marketing plan software package and editor of a series of textbooks including: Advertising Practice, Retailing, Professional Selling, and Business Law. Dr. Schornack has conducted senior management seminars at Coors Brewing Company, U.S. West, and is known for his keynote motivational presentations at regional and national conventions.

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Doctor Ronald Clark is an Associate Professor of Aeronautical Science with the Southwest Region of the Extended Campus of Embry-Riddle Aeronautical University. He is also the principal in Ron Clark and Associates, a consulting firm providing psychological and educational services, primarily in the aviation and aerospace industry. The **Center For Life Transitions** © and the **Aerospace Human Development Institute** © provide counseling & consulting applications. Doctor Clark's educational studies took him to Oklahoma State, Pepperdine and Nova universities, where he received degrees in Social Psychology, Counseling and Human Development. His psychological training includes work in Rational-Emotive Therapy, Group Therapy and Clinical Hypnosis. Since 1985, Doctor Clark has worked with America West Airlines, FarWest Airlines, the U.S. Army Arizona Air National Guard, and the Bechtel Corporation, among others, in providing CRM and flightcrew training services. He lectures extensively on human factors and classroom technology topics. CRM research interests include the effects of domestic stress on airline flying performance, the effective use of airline error management strategies, the utility of emotional intelligence in CRM training, and flightcrew human development.

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.

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

A matter of asking the right questions

Melvin J Anderson, Ph.D. July, 2000

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

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.

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 send fewer of its people to the schools they criticize.

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 out 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.

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Student Public Speaking — Creating the Confidence

Breaking Through Barriers

by

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Student Public Speaking — Creating the Confidence Breaking Through Barriers

"If I can't see it, I don't understand it."
-Albert Einstein

The rise of the information age has intensified the need for improved communication. As employers increase the use of teams and telecommuting in the workplace, the need for improved communication also accelerates both in written and oral modes. For oral communication or public speaking, a review of recent literature indicates this renewed emphasis, with numerous articles highlighting the need coming from disciplines ranging from accounting to science, as well as such specialized subgroups as Black educators. Additionally, more and more people are incorporating technology into their presentations, breaking the limitations of projectors, screens, and flipcharts.

Educators must meet this need in new and creative ways. Typically, a professor will focus on his or her academic discipline, leaving the training in public speaking to its own primary department such as communication, English, or rhetoric. Such an assumption ignores two significant points: not all students will take a speech course; and students need to practice public speaking skills in multiple venues. This paper addresses the need for faculty from all disciplines to recognize the need and to learn how to help students develops their speaking skills. To do this, we will present a communication model that identifies the elements of the process, then use this model to outline a five-step process. Specifically, the paper will address the following topics:

The Rhetorical Process Model of Communication
Step 1. Background — Clarify who you are
Step 2. Preparation — Determine what you want to do
Step 3. Method — Determine how you want to do it
Step 4. Delivery — Present the speech with confidence
Step 5. Feedback — Follow up to ensure success
Summary Table of Best Practices

The Rhetorical Process Model

Our approach to oral communication follows the elements described in the Rhetorical Process Model of Communication (presented in the attached Figure 1). This model considers communication from a systems perspective (input ➞ integration ➞

output); however, it divides the process in two ways. Fist, human communication consists of two tracks, objective and subjective. Additionally, the integration section of purpose and method also divides into two parts. For any communciation process, the purpose consists of both the specific intentions the speaker wishes to achieve and the specific audience that the speaker wishes to address. The method also consists of the genre or type of communication, as well as the process used to develop and sequence the ideas. In this model, the output consists not only of the output speech itself, but also of its interpretation, which may vary among the different listeners. Ultimately, the feedback loop enables the speaker to verify whether the actual message received matches the speaker's intentions. The steps in oral communication described below follow the elements of this model (Beck, Managerial Communication)

Step 1. Clarify Who You Are

Most people do not like to speak in public. Speaking apprehension typically ranks quite high among the common fears people have, and our students are no exceptions.

Given this starting point, professors must help students realize three crucial points:

Students have significant abilities that are undeveloped.
Students have knowledge about many subjects.
Nervousness is **NORMAL.**

As they strive to impart new knowledge and skills, professors must reinforce what students already know. But even more importantly, they must impart the realization that nervousness in public speaking is absolutely normal. Even those who have taught for years must face apprehension in a new setting and with new students. Professors can even reinforce this sense of nervousness by drawing attention to major award ceremonies such as the Oscars for movies and the Emmy Awards for TV. At these ceremonies, even those, whose occupation is public performance, exhibit major nervousness in addressing an audience of their peers. Nervousness is

"normal." But the secret for public speaking is to realize that

The fact that nervousness is normal does not mean that nervousness must take control.

In reinforcing student abilities, professors must give more opportunities to speak, even in limited ways. Students can expect to be called on and to answer questions --- a public speaking opportunity even if they do not leave their seats. They must face frequent opportunities to practice and reinforce their skills — and see such opportunities as typical and normal. Students must come to acknowledge that they indeed have skills and that they actually can speak in public, even if they would prefer not to. If professors require students to demonstrate their knowledge, the professors are setting minimum performance standards which they expect students to meet. And most often, when professors set high standards, students will meet those standards.

Professor Reinforcement	**Student Learning**
Give opportunities to demonstrate abilities	Recognize my inherent abilities
Reinforce those abilities	Believe in my background abilities
Allow continuous practice	Know my position within the group
Provide an open environment	Realize that nervousness is normal
Reinforce that we want to hear	Recognize environment as open
Assume confidence in the student	Predict that others are receptive
	Become self-confident in abilities

Step 2. Determine What You Want to Do

Once students are clear about themselves, they are ready for public speaking. Public speaking begins with a key determination — what do I want to do and to whom am I speaking? Professors need to provide students with multiple opportunities to try public speaking. Such opportunities range may begin with the rather simple requirement to having students stand, identify themselves, and then answer a question before the entire class. Going further, students may present to the entire class an issue or position discussed within a small group. Finally, students may give an extended oral report on an individual or group project. By setting the expectations, training the students, and allowing them opportunity to practice, professors in every discipline can help improve student presentation skills.

Professor Reinforcement	Student Learning
Identify outcomes of learning	Analyze the audience; determine the point I want that audience to get to
Determine the performance standards	Know my classmates and what they expect
Identify opportunities for practice	Recognize how to become comfortable with the audience
Clarify scope, level and depth	Identify with each audience
What level of proficiency	Determine proficiency of audience
Determine level of subject knowledge for class proficiency	Understand the class content
Determine the essential occupational knowledge level	Become comfortable with knowledge proficiency

Step 3. Determine How You Want to Do It

After speakers know themselves, their audience, and their subject matter, they can begin to determine the method of presentation. This aspect is central to the entire speaking process, but it builds on the prior steps. The method includes two dimensions, genre and process. Method and process both recognize that individuals in the audience will process information differently, so the speaker tries to meet multiple needs. For example, "Left-brainers like handouts, definitions, and outlines: right-brainers like visuals to demonstrate a concept" (Weaver, *Computers in Libraries* 19:4 [Apr, 1999] 62.) Additionally, individuals may process information visually, auditorially, or kinesthetically, so multiple approaches help meet the dominant learning styles of the audience.

Multimedia

For types of approaches, obviously we are considering an oral presentation rather than a written document. However, professors must be open to multiple ways to provide oral reinforcement and practice. If professors provide opportunities for public speaking, students gradually become more comfortable and see speaking as "normal":

Brainstorming sessions	Buzz groups
Case histories	Debates
Demonstration	Forums
Interview	Lecture
Panels	Problem solving groups
Project presentations	Report presentations
Structured review	Role playing
Symposiums	Testimonies

Within the overall structure of a class, professors can widen their perspective to include a wide range of opportunities for practice in oral presentation.

General Guidelines

To be effective, however, oral presentations must also integrate appropriate visual reinforcement. As Julie Hill indicates, "the American attention span isn't what it used to be, and the competition for people's hearts, minds and time has never been fiercer" (*Presentations*, Apr 2000, p. 38). The audience is accustomed to sound bites and brief presentations, so the speaker must reinforce information with visuals to re-direct their attention. Visuals must be designed for impact — few words on each visual reinforcing one main idea. Table 1 provides general guidelines for use of visuals.

TABLE 1: General Guides for Visuals

- Keep visuals simple — too much detail confuses and distracts.
- Adapt visuals from books, magazines, web sites, and clip art — remove portions not relevant for your audience or your emphasis.
- Use sharp, primary colors for contrast — pastels and yellow wash out to gray when projected in a large room.
- Use minimal words and short labels — too many words counteract the effect gained by visual reinforcement.
- If you need a complex visual — build toward it by presenting smaller parts, then showing how the pieces fit together.

ADAPTED FROM Charles E. Beck, *Managerial Communication*, (Upper Saddle River, NJ: Prentice-Hall, 1999), p. 92.

In general, professors need to recognize the need for variety in the design of visuals, rather than monotony. An overall design template rigidly followed becomes boring, or as Emerson put it, "A foolish consistency is the hobgoblin of little minds." ***Specific Media Guides***

Aside from the general guidelines, professors must be open to a wide range of visual types. The structure of a classroom may dictate the dominant media, such as white board, overhead projector, or computer-generated slides. The following list provides some alternative visual media for professors to consider:

Chalkboard/whiteboard	Clip Art
Electronic Library	Flip charts
Overhead Transparencies	Storyboards
Newspapers & Magazines	PowerPoint Projection

Tangible objects

The presenter must determine the correct type of visual to convey the type of information.

If your Information Involves..,	*Consider Using ....*
Straight text	Bullet points
Trend Line	Graph or Area Graph
Relationship	Pie chart or line graph
Comparing quantities	Bar graph
Categories, activities	Tables or charts
Process flow	Diagram

After selecting the type of visual, the presenter must follow guidelines, such as those shown in Table 2.

TABLE 2: Guides to Specific Types of Visuals

Lists Follow the rule of sixes — NO MORE THAN
6 words per line
6 lines per slide
6 "word" slides in a row

Photographs Use simple photos with labels to highlight information. Photos may confuse — they usually contain more than the speaker wants to deal with.

Drawings Use simple schematics for visual emphasis. Schematics emphasize concepts or equipment better than photographs. Simple schematics serve as visuals; complicated diagrams belong in a handout or report appendix.

Tables Use simple tables for comparison or contrast. Complex tables present data rather than illustrate key points, so keep complex tables for handouts, simple tables for visuals.

Graphs Use graphs to visualize relationships among data. Simplify the graphs for visuals, with few items compared on the same graph. Place exact scientific plots in a handout or report appendix; use simplified graphs for visual reinforcement.

ADAPTED FROM Charles E. Beck, *Managerial Communication*, (Upper Saddle River, NJ: Prentice-Hall, 1999), p. 93.

The speaker must be alert to the size of the room and the projection capability. Whether the speaker is using a flip chart or projecting an image on a screen through transparencies or PowerPoint, the viewing principles remain the same. The farther the viewer is from the projected image, the larger the lettering must appear, using the following relationship:

Minimum Letter Size	Maximum Viewing Distance
1/4 inch	8 feet
½ inch	16 feet
1 inch	32 feet
2 inch	64 feet

The best concepts on a screen are meaningless if the viewer cannot see them. The style of the font must create the maximum impact.

Use no more than 3 font styles in a presentation
Limit the USE OF ALL CAPS — THEY ARE HARD TO READ
Limit use of **boldface** and ***italics*** — they distract
Use a font size that can be seen (usually 24; no smaller than 18)
Use large fonts for headlines — 35-45
Use sans serif fonts (Helvetica) for better projection

ADAPTED FROM Presenters University Web site

Technology Enhancement

Our students have been conditioned by television and refined through the MTV culture, so they expect visual excitement. Such excitement comes from reinforcing the content

of a presentation with sight and sound — graphics and music. By daring to be different, the professor can relate information by pushing the theme to the edge while avoiding the obvious danger of going over the edge. In other words, the speaker tries to reinforce but not replace the key ideas. Computer-generated graphics provide an easy way to achieve reinforcement: PowerPoint backgrounds may be downloaded from the Internet. Many can even be downloaded from the Internet, whether individual content on a specific topic or just backgrounds for PowerPoint. Computers connected to projectors, overhead screens, or smart boards are becoming more commonplace as a way to meet audience expectations. Ultimately, however, the professor must ensure that the purpose and audience come first — PowerPoint is not an end in itself but a means to help the speaker achieve a specific purpose.

Process and Flow

The process involves the wording for the sequence of ideas, word choice, types of examples. The speaker must prepare for multiple repetitions to reinforce concepts, including previews, presentations, and reviews. The speaker may be presenting an abstract concept, but needs to bring it to life with examples, metaphors, and analogies. The amount of variety in approaches will appeal to the multiple learning styles in the audience.

Ways to explain concepts:

Main Techniques
- Examples from the subject area
- Metaphors/analogies from outside the subject area
- Operational definitions of specific terms

Additional Techniques
- Further definition of complex words
- Etymology of words derived from other languages
- Past history with the concept or idea
- Basic principles
- Cause and effect
- Physical Description
- Simplify by dividing into parts
- Mnemonic devices

The speaker needs to provide a logical sequence for the ideas while incorporating a variety of wording approaches. Some general

reminders for sequence include the following:

An attention getting opener

Content interspersed with anecdotes or humor to reinforce

A closing that sums the ideas and leaves an impact

In particular, the speaker attempts to impart learning in a way that is informative, memorable, and fun. The fun aspect relaxes both speaker and audience, creating a more conducive atmosphere for learning. In preparing for a formal presentation, the speaker should organize main ideas and jot a few notes in outline form. Even for a short response in class, students who organize key ideas will come across as more prepared and credible. The use of notes in speaking is a standard, accepted practice; however, "notes" does not equate to a "full script" for the speech. By preparing for every occasion, students will learn a technique that will adapt to multiple circumstances.

Preparing the ideas for the presentation, however, is insufficient — the speaker must practice the delivery, and practice with an audience improves the final result.

Professor Reinforcement	Student Learning
Identify learning approaches	Become comfortable with a variety of learning approaches
Demonstrate multiple visual Genres	Become comfortable using multiple visual genres
Reinforce logical approaches to sequence of information	Be able to sequence ideas in logical order for presentation

Step 4. Present with Confidence

The preparation leads up to the main feature, the presentation itself. Here we reinforce the old proverb: "It's not what you say but how you say it that counts!" Here we focus on both the verbal and the nonverbal aspects of the presentation.

Verbal

The speaker must speak loud enough and slow enough so that the entire audience can hear. Loud and slow means enunciation — moving the mouth more than normal in routine conversation, projecting the words to the wider audience. Loud and slow places the speaker in control — it counteracts the normal nervous tendency to speed up; but more importantly, it gives the speaker the mental processing time to form the words and convey the ideas. Someone who speaks too fast will get lost,

searching for words and using verbal fillers (uh, um, ok) will reduce effectiveness. The note card serves as a reminder of the key ideas to talk about, and the deliberate slowness gives the speaker time and lets the audience hear more clearly.

Students must practice in advance — which means standing and speaking out loud. They cannot just mentally go over the ideas; rather, they must be comfortable with how they sound when speaking loud and slow

Nonverbal

Nonverbal communication can create visual excitement or distraction. Speakers often forget they themselves are the primary visual for a presentation, so physical appearance is a key starting point.

Nonverbal communication includes five main elements: gestures, eye contact, posture, paralanguage, and facial expressions (James P. T. Fatt, *Communication World* 16:6 (June-July, 1999) 37-40). The audience responds to nonverbal communication in determining overall impression. When the speaker finishes, the audience may not even remember the exact content, but they will remember impressions such as whether they liked or disliked the speaker, whether they judge the speaker as competent or incompetent, and whether they had confidence or no confidence in the recommendations.

The audience will determine credibility of the speaker based on such nonverbal aspects as eye contact, gestures, and posture. Does the speaker "appear" confident or not. The word "appear" is critical. The speaker may be extremely nervous; but if the speaker recognizes the nervousness and decides not to let it take over, the speaker will appear quite confident to the audience. The reason that professors need to give students practice in public speaking is to reinforce this key point — speakers can be nervous yet quite effective at the same time; the two are NOT mutually exclusive.

The paralanguage aspects of public speaking include the dynamics of volume, pitch, and pronunciation. The first words spoken set the tone for the audience — is the speaker confident or not. Again, the idea of slow and loud will set up the audience for a favorable impression.

Professor Reinforcement	Student Learning
Provide continuous opportunities to speak	Stand and speak with confidence, use simple gestures
Provide a professional platform	Project self and ideas as important
Provide a professional environment	Maintain eye contact
Demonstrate proper techniques by example	Reinforce presentations with visuals, use a pointer judiciously
Provide immediate feedback	Use minimal notes as reminders
Ensure adequate equipment availability, let students become tutors	Speak extemporaneously for for maximum effect

Ask critical thinking questions "What if?"

Step 5. Follow up to Ensure Success

The process of speaking does not end when the speaker walks away or sits down. The educational process requires feedback from the professor, members of the audience, and the specific student involved. Some feedback should occur immediately, whether through a brief verbal comment, a nod of approval, or a brief comment sheet. Other feedback will occur later, such as individual responses by other class members. The forgotten component comes from the student. Students should be asked to reflect on their speaking performance, to objectively look back, starting with feelings about the experience by progressing to a cognitive analysis. Students can become effective speakers; but the greatest drawback is their own assumptions. By forcing them to examine their performance with feedback and self-analysis, students can change their assumptions about their ability. They may never reduce their sense of nervousness, but they can come to realize that they are effective, despite nervousness.

Professor Reinforcement	Student Learning
Verify performance level	Ask questions to verify audience interpretation
Verify knowledge level and content	
Reinforce the positive highlights	Ask someone to paraphrase the learning outcomes
Determine audience reaction and responses	Prepare select audience members for guaranteed feedback
Present individualized overall performance	
Provide opportunity for self critique	Provide a self-critique of successes and areas of improvement

Conclusion

Professors face a continual dilemma — how to develop professional speaking skills in students. They may take the approach that such skills come through a communication course or through a communication department, but such an approach passes the buck to someone else. The challenge that educators face involves how to reinforce and expand communication. The best reinforcement comes by integrating oral communication skills into the courses to the extent possible. Educators face the challenge of ensuring that their students leave the skills they need to succeed. They must make students aware that they sell themselves in whatever career they choose. They can do so by giving students the opportunity and the tools, and reinforcing their ability.

Public speaking combines the ideas and presentation, the verbal and the visual. Ultimately, the speaker is the main visual for the presentation, so the speaker needs to be well groomed and appropriately dressed for the occasion. Extreme fashions or make up, clanky jewelry, or noisy coins in a pocket create distractions.

> "Life in the eyes and a smile on your face are the most important visuals in your presentation" (Anne Miller, "Courses," *WWW. Presentersuniversity.com*, April 27, 2000).

Best Practices Summary Table

	Professor Reinforcement	*Student Learning*
1. Clarify who you are Status and Assumptions		
	Give opportunities to	Recognize my inherent abilities
	Demonstrate abilities	Believe in my background abilities
	Reinforce those abilities	Know my position within the group
	Allow continuous practice	Realize that nervousness is normal
	Provide an open environment	Recognize environment as open
	Reinforce that we want to hear	Predict that others are receptive
	Assume confidence in the student	Become self-confident in abilities
2. Determine what you want to do Purpose (intention and audience)		
	Identify outcomes of learning	Analyze the audience; determine the point I want to that audience to get
	Determine the performance standards	Know my classmates and what they expect
	Identify opportunities for practice	Recognize how to become comfortable with the audience
	Clarify scope, level and depth	Identify with each audience
	What level of proficiency	Determine proficiency of audience
	Determine level of subject knowledge for class proficiency	Understand the class content; be able to restate that knowledge for others
	Determine occupational knowledge level	Become comfortable with knowledge proficiency

3. Determine how you want to do it
Method (Genre and Process)

Identify learning approaches	Become comfortable with a variety of learning approaches
Demonstrate multiple visual genres	Become comfortable using multiple visual genres
Reinforce logical approaches to sequence of information	Be able to sequence ideas in logical order for presentation

4. Present with Confidence

Provide continuous opportunities to speak	Stand and speak with confidence
Provide a professional platform	Use simple gestures
Provide a professional environment	Project self and ideas as important
Demonstrate proper techniques by example	Maintain eye contact
Provide immediate feedback	Reinforce presentations with visuals
Insure adequate equipment availability	Use a pointer judiciously
Let students become tutors	Use minimal notes as reminders
	Speak extemporaneously for maximum effect

5. Follow up to Ensure Success

Verify performance level	Ask questions to verify audience interpretation
Verify knowledge level and content	Ask someone to paraphrase the Learning outcomes
Reinforce the positive highlights	Prepare select audience members for guaranteed feedback
Determine audience reactions and responses	Provide a self-critique of successes and areas of improvement
Present individualized overall performance	
Provide opportunity for self-critique	

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THE EVOLUTION OF AN EFFECTIVE SPEAKING ACROSS THE CURRICULUM PROGRAM FOR EMBRY-RIDDLE AERONAUTICAL UNIVERSITY'S EXTENDED CAMPUS THROUGH UNIVERSITY COMMITMENT AND FACULTY TRAINING AND DEVELOPMENT

by

Ronald E. Clark

ACKNOWLEDGEMENTS

The author wishes to acknowledge the wonderful speaking across the curriculum programs extent across America, and especially those administrators and faculty who have dedicated themselves to this essential movement. The need for articulate and even forceful speakers will only grow in this new millennium.

A debt of gratitude is due Dean Emeritus Robert Hall, whose insightful vision and internal grant approval launched ERAU's Computing Across the Curriculum Program in 1993. This CATC program has evolved into a quadratic effort, now including computing, critical thinking, speaking and writing across the curriculum.

Last, the author wishes to acknowledge the leadership of Professor Earl Wheeler in initiating and continuing the Teaching Effectiveness Symposium series, now in its eighth successful year.

ABSTRACT

This paper presents a brief history of the American Speaking Across the Curriculum movement, chronicles the current Embry-Riddle Extended Campus Speaking Across the Curriculum Program, and recommends the steps to be taken to bring the ERAU Speaking Across the Curriculum program up to an effective level. The elements of industry need for effective and articulate speaking skills is documented, several SAC models are examined, and a shopping list of possible options is examined. Based on its unique Extended Campus model of over 120 resident centers and some 3,000 center faculty to be trained and developed for optimum SAC student gains, a specific SAC developmental model is proposed.

CHAPTER I

INTRODUCTION

This paper has been written to chronicle the Speaking Across the Curriculum (SAC) portion of ERAU's quadra-faceted "Computing Across the Curriculum" (CATC) Program, and to recommend an optimized SAC program. Motivated by the possibility of acceptance for presentation this fall, thereby communicating the need for enhancing the current SAC program, the author desires to tell the story of enhancing student communication skills through an effective SAC program.

It is germane to, following this brief introduction, first discuss the emergence of the SAC paradigm, and chronicle several different SAC models, with an emphasis on university commitment and faculty development and training. Following this, Embry-Riddle's Extended Campus (EC) SAC program is developmentally discussed. Last, an optimized ERAU EC SAC program is offered.

In this "fast food", "rapidly advancing technology", "two for one sales" millennium, it is considered very appropriate that all ERAU EC undergraduate and graduate students receive, in addition to their normal aviation/aerospace education, comprehensive communication and critical thinking skills. These embedded communication skills may far outweigh all other educational gains (Glasser, 1990).

As America's colleges and universities re-emerge from the last painful quarter-decade into this new millennium, the demand for multi-faceted communication skills is louder than ever before. Whether it is the new adult just clearing his or her teenage years, or the working professional with

20 years experience, the need for clear, concise communications skills is demanded by both life and industry.

With computing, speaking and writing skills to choose from, the author chose Speaking Across the Curriculum over computing and writing, not because of relative importance, but because of the first impression phenomenon. All too often in this life, we judge books by their covers, and one muffled verbal presentation, or even an uncomfortable or muffled introduction, find us signed, sealed and judged. There is much to do before public speaking leaves the "top ten" list of personal fears, and music vocals are actually understood (Foss, 1983). An effective Speaking Across the Curriculum program, with full administration support and an effective faculty SAC training and development program can get us to an effective speech communication Nirvana.

CHAPTER II

SAC HISTORY

Central College of Iowa

According to Cronin and Grice (1991), we can trace the importance of oral communications training by scholars to at least the time of Aristotle. Russell (1988) writes that the contemporary language across the curriculum movement began when British educators began to emphasize teaching language through talk in the 1960s. By most accounts, the first American Speaking Across the Curriculum program began, similar to the popular movie Field of Dreams, adjacent to an Iowa cornfield (Cronin & Grice, 1991). At the Central College of Iowa, the first communication across the curriculum (CAC) program, including SAC, began in 1976.

At Central College, faculty received training in reading, writing, speaking and listening at summer workshops (Cronin & Grice, 1991). For those needing extra assistance, speaking and writing centers were established. The Central course catalogue listed certain courses that emphasized one of the four communications skills.

Roberts (1983), who conducted a three year follow-up study of one group of Central students, mentioned that 74 percent reported an increase in their communication skills attributable to the Central CAC program. Some 90 percent of the students surveyed mentioned that they now had a moderate or intense desire to continue improving their own skills. The Central faculty mentioned that their benefits from the Central CAC program included increased knowledge about communication skills, confidence in teaching communication skills, and an increase in collegiality. Central faculty who were CAC trained gave the same number of oral assignments, but were more likely to assist students in preparing oral assignments.

The Clarkson University Oral Communication Program

Steinfatt (1986) describes the Clarkson program in which the School of Management imbedded communications modules in courses. A management faculty member trained in speech communications assisted the course instructor in the design, implementation and evaluation of communication activities. The communications modules addressed basic oral presentation, listening, interpersonal communication in organizations, and applied persuasion.

In an initial outcomes assessment, Steinfatt (1986) surveyed graduating seniors and MBA students, visiting executives, and supervisors of graduates. All indicated that the Clarkson program appeared to have a significant positive effect on the communication and education of Clarkson students.

The Hamline University Oral Communication Program

According to Palmerton (1996), Hamline University began their SAC program in 1985-86 as the first step of Phase I of the curriculum known as "The Hamline Plan". This plan includes a first-year seminar, SAC courses, Writing Across the Curriculum courses, and computer-intensive courses. The oral communication component of this plan

requires students to take two speaking intensive (SI) courses to graduate. The SI courses can be taken at any time, and in any discipline.

The first-year seminar in oral communication is a discussion oriented course that helps students develop their class discussion abilities (Palmerton, 1996). This course becomes, in essence, a third SI course.

To teach a SI-designated course, Palmerton (1996) mentions that Hamline faculty must complete an oral communication faculty development seminar, and must have their course proposal approved by an oral communication faculty committee. The faculty-designed SI courses have three common objectives:

1. Speaking intensive courses must support the instructional goals of the instructor, and help the students learn course material.
2. The instructor must provide guidance and interventions to students in the process of fulfilling the requirements of Speaking Intensive activities.
3. Students must have opportunities to put their learning to use, that is, there must be an opportunity for students to try again after having received criticism regarding their oral communicative efforts.

At Hamline, faculty are encouraged to focus on any of a number of oral communication activities, including large and small learning group discussions, communications in task groups, interpersonal and intercultural communications, and presentational speaking.

The Hamline Oral Communication Program is structured to assist students acquire understanding and ability in both knowledge about communicative processes, and the ability to enact communication behaviors successfully (Palmerton, 1996). Hamline is committed to the concept that learning is enhanced when students are actively engaged in oral

discussion of course content. The Hamline SAC program focuses on student performance, and helping students understand the relationship between their communicative choices and actions, the process of inquiry, and their learning. In essence, Hamline is committed to helping students become reflective practitioners.

At the department level, Palmerton (1996) reports that Hamline provides departmental support by providing both a major and minor in Communication Studies (CS), supported by a full complement of courses in communication studies. The Hamline SAC program does not require a course in Communication Studies as a part of the SI requirement , but several CS courses, such as Public Speaking, Interpersonal Communication, and Small Group Communication, are SI. In addition, the Communications Department works closely with the Study Resource center in staffing a Writing/Speaking Center with oral communication tutors.

According to Palmerton (1996), Hamline has three full-time faculty in Communication Studies, with occasional adjunct faculty help. They have structured the oral communication program so that faculty without academic specialization in Communication Studies will be specifically prepared to teach SAC courses. In addition, speech communication professionals are actively involved in faculty preparation to teach SI courses, and are available for faculty consultation at any time.

The Radford University Oral Communication Program

Cronin and Glenn (1991) mention that a State of Virginia Fund For Excellence Grant for $172, 048 was awarded to Radford University by the Virginia State Council for Higher Education for 1988-90 to develop Radford University's Oral Communication (OC) Program. With an additional $203,886 awarded for 1990-1992, Radford University provided an

additional $496, 466 in support of this SAC project.

According to Cronin and Glenn (1991), the primary mission of this million dollar program is twofold:

1. To provide programming, facilities, and professional expertise to help faculty, staff and students improve oral communications skills; and
2. To support and facilitate the incorporation of oral communication activities to enhance learning of course content throughout the undergraduate curriculum.

To accomplish these mission objectives, communication faculty established a center for assistance, developed instructional materials, and provided expert assistance to university faculty, students, and staff (Cronin & Glenn, 1991). Each non-speech instructor of courses enhancing learning through the use of oral communication activities is paired with a speech faculty volunteer consultant. This consultant assists with planning, implementing and evaluating oral communication activities. Normally, Radford consultants provide lectures, handouts, critiques of student performance, and advice on preparing oral communication assignments.

According to Cronin and Glenn (1991), during the first three semesters of Radford University's OC program, most students in C-I courses heard lectures on oral communication skills (73%), participated in a group presentation(s) (70%), and received handouts on oral communication skills (59%). Student surveys at the end of the first three semesters of this OC program disclosed that:

1. Most students (67%) felt that the oral communication activities

helped them improve their communication skills.

2. Only 9% of respondents indicated that such activities did not enhance their oral communication skills.

1. Most students (67%) felt that they would have learned less course content without the oral communication component; 2% indicated that they would have learned more.
2. When asked for their overall evaluation of the oral communication activities, 29% marked excellent and 54% marked good; less than 2% of the students felt that the activities were poor or very poor.
3. Most students (65%) liked participating in the oral communication activities; 6% indicated that they disliked participating in them.

Anecdotal reports from both students and faculty, very parallel to evaluations from other SAC rograms, indicated that C-I courses, compared to non-C-I courses, have several benefits (Cronin & Glenn, 1991):

1. Instructors in C-I courses tend to give more training to students on how to accomplish oral training assignments.
2. Criteria for oral communication activities in C-I courses tend to be clearer (Roberts, 1984) and feedback to students on their oral communication assignments is often more specific.
3. Students feel that the active learning required by oral communication activities is preferable to the more passive learning in lecture-oriented courses. Students feel that oral communication activities place greater emphasis on sharing their ideas in their classes (Hay, 1990).
4. Faculty feel that oral communication activities in their classes are a fundamental mode of learning (Weiss, 1988)

because they promote cognitive structuring and higher levels of conceptualization for students (Modaff & Hopper, 1984).

SAC History Summation

From at least the days of Aristotle to the present, institutions of learning and faculty have known that verbal discussion in learning environments produces learning enhancements. No doubt spurred on by the British oral communication movement in the 1960s and the Central College of Iowa SAC program initiation in 1976, many American colleges and universities have initiated CAC and, more specifically, SAC programs. In 1991, Cronin and Grice discovered some 20 post-secondary campus-wide programs of oral communication across the curriculum.It is apparent that the SAC "movement" is growing in America, with many different models to choose from.

CHAPTER III

ERAU SAC PROGRAM

In the fall of 1993,an internal grant of $3,600 was awarded to the Embry-Riddle Aeronautical University (ERAU) Computing Across the Curriculum (CATC) Committee of the Extended Campus. This austere, but essential grant was awarded to initiate a CATC program that would provide computer hardware, software and training to some 25 full time and over 3,000 resident center EC faculty. From 1993 to the present, the CATC Committee has consisted of approximately 6-8 full-time faculty and administrative advisory members.

Beginning with the procurement and issuance of laptop computers and appropriate software to all full time faculty, the CATC Committee has overseen the procurement of:

1. resident center computers for academic support,
2. selected location resident center computer laboratories,
3. distance learning equipment to link two geographically separated

centers together for shared synchronous courses,

4. CD-ROM hardware for academic computers,
5. color LCD projectors for all full time faculty and over 120 resident centers,
6. external peripheral equipment, including ZIP drives, UHF mice, PC/TV projection devices, portable VCRs, portable DVDs, etc.

In the fall 1997 meeting of the EC Faculty Senate, a motion was passed, and approved by administration, to include, in all undergraduate and graduate course outlines (and syllabi), a student performance objective relating to enhancing students' computing, critical thinking, speaking and writing skills. At this juncture, the ERAU Extended Campus embarked on a Communicating Across the Curriculum and Speaking Across the Curriculum path simultaneously.

At the writing of this paper, the ERAU EC SAC program has not been formalized to resemble any of the 20 SAC programs described by Cronin and Grice in 1991. It is the intent of the author to prescribe that formalization through the presentation of this paper at the fall 2000 ERAU EC Teaching Effectiveness Symposium, and, later, through the presentation of a nominal and recommended program to the ERAU EC Faculty Senate as a Computing Across The Committee motion for adoption.

CHAPTER IV
A PROPOSAL FOR AN OPTIMIZED ERAU SAC PROGRAM

This concluding chapter will first document the need for enhanced student speaking or oral communication skills, then speak to the necessity of creating a formalized program of oral communication or speaking across the curriculum. Last; the author will recommend a nominal SAC program for ERAU's uniquely structured Extended Campus.

The Need for Enhanced Student Oral Communication Skills

According to a study conducted by Curtis, Winsor and Stephens in 1989, the skills most valued in the job-entry market are communication skills. The skills of oral communication (both interpersonal and public), listening, written communication, and the trait of enthusiasm are considered the most important. According to Brummett (1987), the College Board in 1983 proposed a list of five oral communication competencies in speaking and listening considered essential to a good education:

1. The ability to engage critically and constructively in the exchange of ideas, particularly during class discussions and conferences with instructors.
2. The ability to ask and answer questions coherently and concisely and to follow spoken instructions.
3. The ability to identify and comprehend the main and subordinate ideas in lectures and discussions, and to report accurately what others have said.
4. The ability to conceive and develop ideas about a topic for the purpose of speaking to a group; to choose and organize related ideas; to present them clearly in standard English; and to evaluate similar presentations by others.
5. The ability to vary one's use of spoken language to suit different situations.

According to Steinfatt (1986), SAC, like Writing Across the Curriculum,

Is too important to be taught in a single course. Apparently, learning occurs best through the cognitive processes associated with message formation. The cognitive act of message formation and the behavioral act of message delivery changes the way a student thinks about any issue, problem or topic area. Unless education is viewed as the learning of facts, the act of creating and

communicating a message is at the very heart of the educational experience.

Cronin and Glenn (1990) mention that, in response to widespread calls for increased communication skills training for college students, several institutions have initiated programs in oral communication across the curriculum. They state that business and education leaders nationwide have noted in recent years that college graduates do not possess adequate communication skills. Apparently, written and oral communication skills are best developed in a variety of courses. Improving the quality, and expanding the application of meaningful oral communication activities is seen as directly enhancing learning across the curriculum. Designed properly, oral communication and SAC programs can provide students multiple opportunities to emphasize speaking and listening in a variety of content areas, with carefully designed assignments and constructive feedback. Through the use of SAC programs, students are seen as taking a more active role in mastering and communicating course content.

From a sociological point of view, it is readily apparent in the offices of marriage counselors that people often suffer from the tendency to evaluate what another person is saying and therefore to misunderstand or to not really "hear" (Rogers & Roethlisberger, 1991). Foss (1983) is specific in detailing the overcoming of what she calls "communication anxiety", and describes how to best accomplish this well before she discusses teaching communication skills and speaking and listening education across the curriculum. Tarule (1992) mentions that adults "enter the academy experience-rich and theory-poor", in contrast to younger traditional college students who are often theory-rich, but experience-short.

Tarule (1992) specifies that learning is not *in* the conversation, but *is* the conversation. Knowledge is socially constructed in our language constituted relations. The process of becoming a

knowledgeable adult in a social, cultural context, able to speak about one's concerns and build ideas with others, is often referred to as "gaining a voice" (Tarule, 1992, p. 12). Oral communication, or dialogue, as Tarule puts it, is the wherewithal of the educational process.

> Dialogue also has been described as the way that domination, subjugation, privileged claims to truth, and the power of difference are negotiated and mediated in conversations and classrooms. Language, speech, and dialogue not only place people in relation to each other but also define and influence the nature of that relationship. All are aspects of verbal interchange, and are relevant as cultural, social, and political dimensions of defining an epistemological "discourse community" and the "cultural work" of the classroom. The opportunity for particular kinds of dialogue clearly is important for many students. ...students define the ability to feel "safe" as they speak, to be "voiced", to listen and be heard, and to "explore ideas" not as *part* of their learning but *as* their learning (p. 14).

Hay (1987) mentions that numerous studies of college graduates, employers and corporate executives have emphasized the relationship between professional success and sophisticated communication abilities. She quotes from the Association of American Colleges, which stated, in their Integrity in the College Curriculum:

> We are a century or more away from the time when going to college meant instruction in oratory, stage presence, debate, and the arts of oral persuasion...A bachelors degree should mean that its holders can read, write and speak at levels of distinction and have been given many opportunities to learn how.

It should also mean that many do so with style (p. 19).

Creating a Formalized SAC Program

Cronin and Grice (1991) provide a model for designing, implementing, and assessing a university-wide oral communication program. Their program is designed to help faculty, staff and students develop their oral communication skills and to help faculty incorporate oral communication activities to enhance learning throughout the curriculum. In their program at Radford University, faculty receive personalized training to improve their professional communication skills.

SAC Services

At Radford University, the oral communication program provides the following services for staff, faculty and students:

1. Information-exchange forum
2. Oral Presentation Program
3. Speech Fright Program
4. Listening Program
5. Debate Program
6. Small Group Communication Program
7. Communication Laboratory
8. Communication-Intensive (C-I) Courses
9. Oral Communication (OCXC) Support Facilities
    a. Offices for program administrators
    b. An office reception area
    c. A classroom for SAC/OCP meetings, workshops and receptions
    d. An OCXC Laboratory
    e. Taping/performance rooms
    f. A Peer Tutoring Laboratory

Weiss (1990) mentions that any SAC program may consist of a number of components, including:

1. an educational philosophy,
2. an administrative structure,
3. a system of student assistance,
4. assessment of student speaking, and

5. faculty development

Concentrating in his paper on the faculty development component of SAC programs, Weiss (1990) mentions that it is when faculty development efforts are directed toward improved classroom teaching that they become important for SAC. He posits that it is not unreasonable to place faculty development as the sine qua non of speaking across the curriculum. Weiss describes some of the faculty development features commonly found in SAC programs as: workshops, workshop follow-ups, and coordination with Speech Communication faculty.

Creating an Optimized ERAU EC SAC Program

Because of the nature of Embry-Riddle's Extended Campus structure and geographic footprint, there are additional problems that nominal university SAC program implementation does not encounter. With some 120 residential centers in the U.S. and Europe, and over 3,000 center faculty, both SAC program implementation and faculty SAC development will be challenging.

As a nonprofit institution, Embry-Riddle can best fund an Extended Campus SAC program through a grant or series of grants that will allow for SAC program design, implementation and assessment/evaluation. This grant process will probably require some percentage of university matching for grant moneys received.

The Extended Campus, perhaps with the assistance of the Daytona Beach Speech Communications Department, or their equivalent, should consider developing certain speech intensive (S-I) courses across degree programs and disciplines. Again, with the assistance of Daytona Beach faculty and administration, faculty tutors might assist in the production of a videotape or CD-ROM product for faculty development. It is envisioned that all three ERAU campuses would eventually participate in the SAC and other "across the curriculum" learning environment programs.

While both funding and Faculty Senate approval for expansion of the existing minimal ERAU EC SAC program are being considered and acted on, there are certain SAC applications that can be implemented in the classroom by all EC faculty with a minimum of faculty development or training:

1. Begin regional faculty development training in the principles of SAC, with handouts developed by the ERAU EC CATC Committee. Some SAC applications that can be immediately implemented include:
    a. Provide discussion opportunities for all students in all classes.
    b. Provide end of course PowerPoint presentations in all courses.
    c. Conduct oral quizzes, midterm exams, and final exams.
    d. Use the Socratic questioning method of teaching.
    e. Emphasize the importance of appropriate oral communications in all applications in life.
    f. Encourage and motivate all students to improve their oral communications.
    g. Institute vocabulary enhancement through student and faculty enrollment in the Merriam-Webster Word of the Day Program, found at: www.Merriam-Webster.com/service/subinst.htm
    h. Have all students orally introduce themselves in each course.
    i. Require appropriate oral course deliverables each class of each course.
2. Create a WWW website or web pages that display essential SAC

tenets and faculty "need-to-know " andragogical applications.

3. Create a Web-CT Educational Technology (ET) course on SAC with the assistance of the ERAU ET Department.
4. Invite prominent SAC educators from other universities, as well as ERAU Daytona Beach Speech Communication faculty, to visit the ERAU EC Faculty Senate meetings in Daytona Beach, to conduct a videotaped SAC tutorial, for distribution to the EC faculty.
5. Obtain existing pertinent SAC videotapes for use during regional faculty development workshops.

In conclusion, it is apparent that there are both short and long term SAC goals for both the Embry-Riddle Extended Campus and university at large to consider. While the long term goals are being worked and proposals are being readied, there is much that Extended Campus faculty can do to implement their personal SAC program, beginning with their personal oral communications growth.

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