

Preparing Undergraduate and Graduate Students to Meet Meat Industry Career Challenges

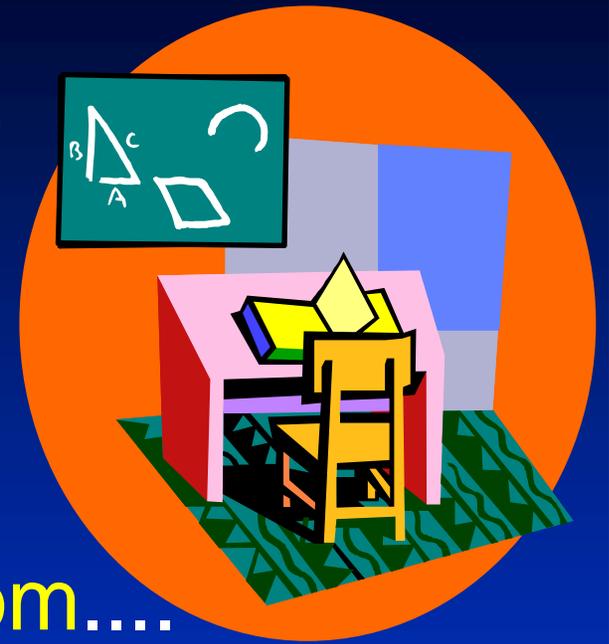


Gary C. Smith
Dept. of Animal Sciences
Ft. Collins, CO 80523-1171



If You Wanted to Start a University (A)

"If you wanted to start a college (now, a university), and had limited funds, for what would you initially spend money?



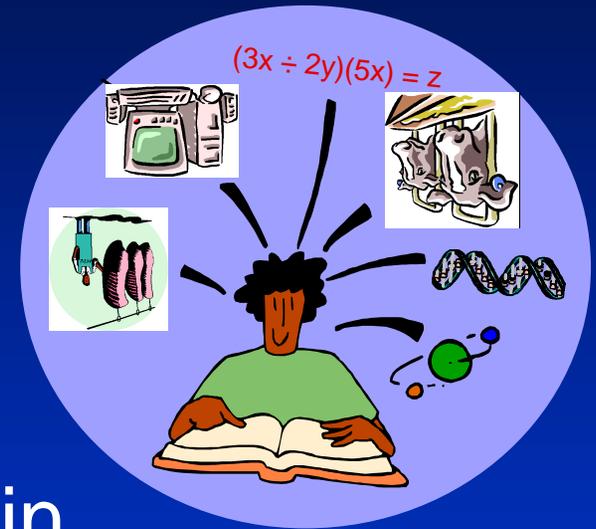
First, you would **build a classroom....**

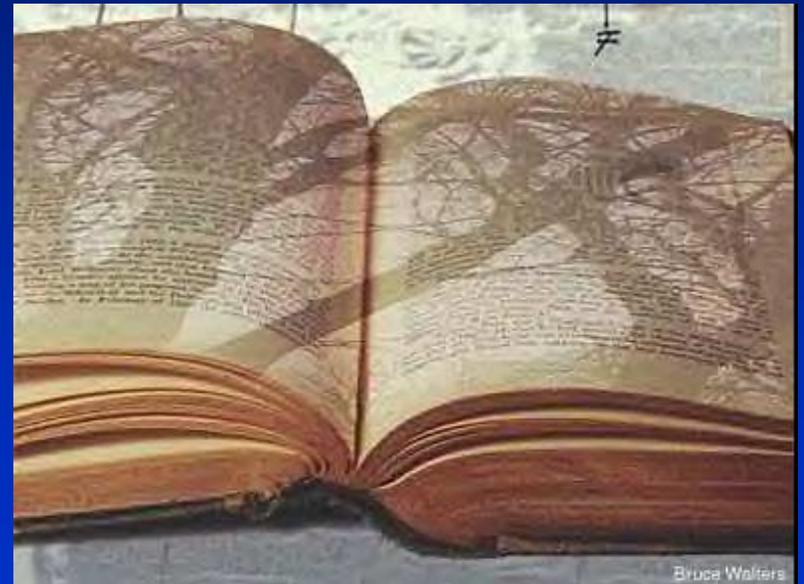
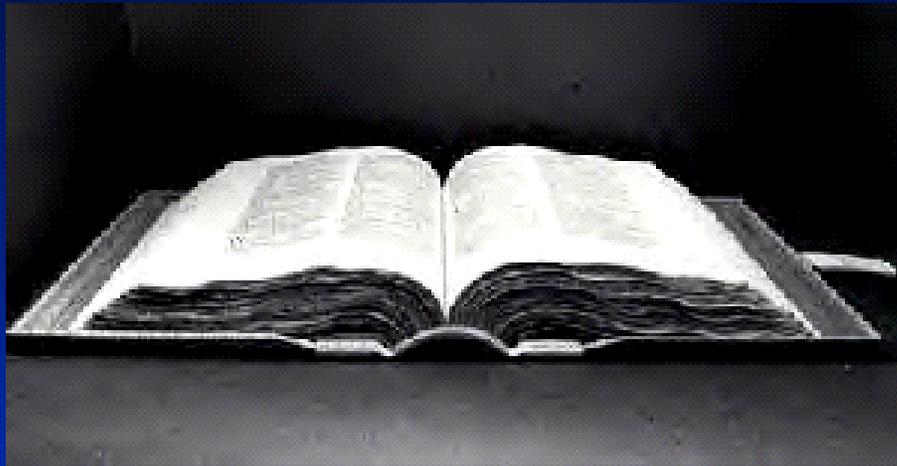
so students could have a place to meet, to discuss things, and to learn to communicate."



If You Wanted to Start a University (B)

"If additional money then became available.....
You would **buy a book**.....
with that, students could pursue scholarship, learn to think critically and, through verbal debate, discuss (communicate) interpretations of what the facts in the book were, what the author 'said' vs. 'meant', and how the thoughts presented there could be made more relevant."





Bruce Walters

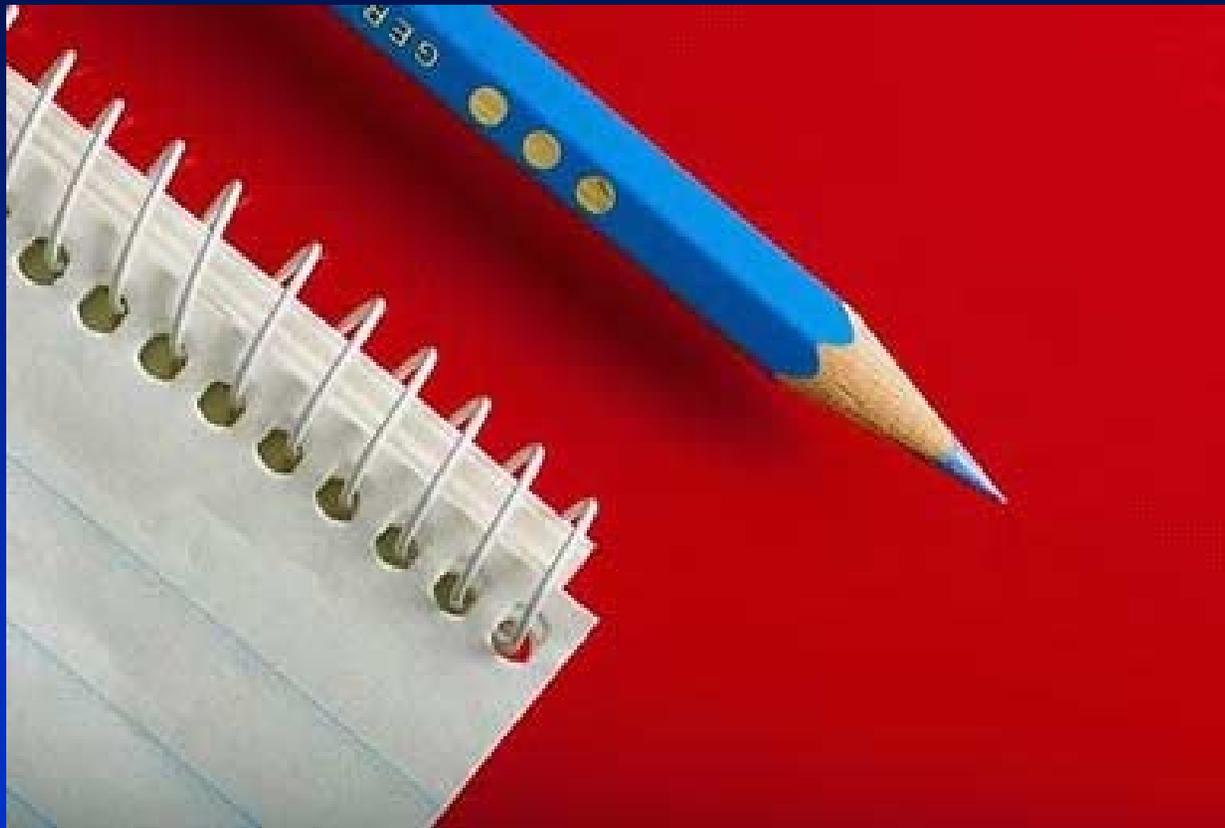
If You Wanted to Start a University (C)

"Third, and only if more funds became available....

You would **buy pencils and paper...**

so the students could begin to synthesize their thinking, to mull over their logic and interpretations, to commit their thought processes to paper, and to communicate their ideas in written form."





If You Wanted to Start a University (D)

"If, and only if, even more funds became available.....

You would **hire a teacher**, and then, only in the absence of a student leader grown up through the ranks -- for surely, the propensity to lead would have surfaced from among those present in candid and open discussion sessions."





If You Wanted to Start a University (E)

"A teacher's presence is functional, of course...
to explain and interpret the book -- in the light
and context of other books, and of the
professor's experience of things in and around
and pertaining to the facts and ideas
in the book.....and, secondly.....
to harness discourse -- so that
not too much time is wasted on
frivolous debate."





My Take on What Dean Weir Was Saying

Is that not the essence of the teaching/learning process....."Put 'em in a room, buy 'em a book and get 'em pencils and paper"...what follows will astound you -- but it will come at a price and one we can ill afford -- it **takes too long** and the **targets are too obscure**.

And so, in our wisdom, we seek more highly structured thinking and

communication...and we sacrifice the opportunity to allow the students **to learn to lead**.





Preparing Undergraduate Students to Meet Career Challenges in the Meat Industry

Think Critically

Compare Logically

Decide Independently

Solve Problems Rationally

Communicate Effectively

Lead Decisively

Thinking Critically

To "Think": *to formulate in the mind, to reason about, to reflect on, to judge, to decide.*

"Critically": *characterized by careful and exact evaluation and judgment.*

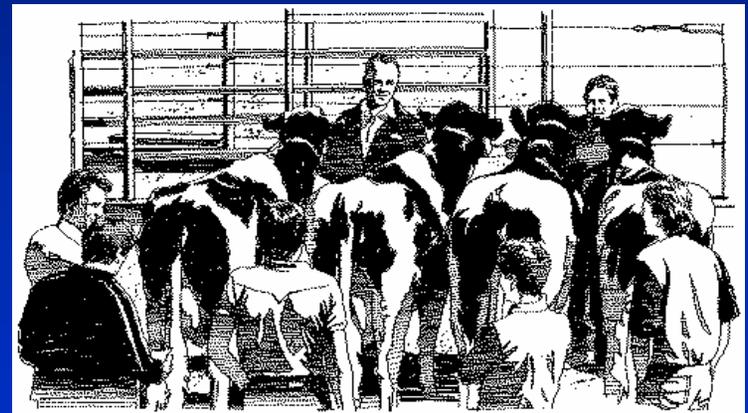
Ability to Think Critically: *formal courses that emphasize application of facts/knowledge, use of logic in problem-solving and systems analyses.*

Livestock, Meat and Wool Judging/Grading/ Evaluation provide opportunities to use comparative reasoning and application of memory- standards in decision-making processes.



Dr. James Shanteau (Kansas State University) in a bulletin "Psychological Abilities of Livestock Judges" concluded that:

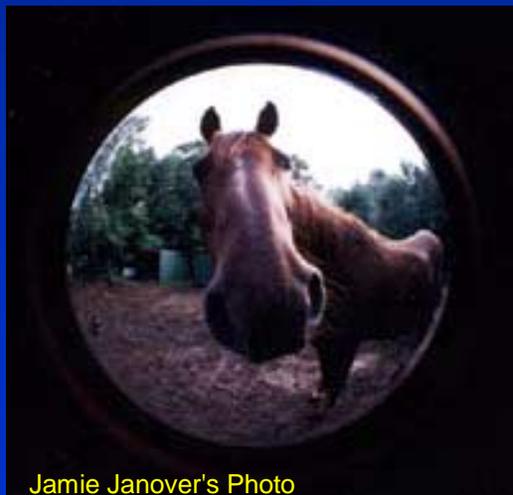
"Compared with experts in medicine and law, **livestock judges** appear to have **unusual abilities to make complex judgments**....and, the training program used to develop livestock judges has a clear impact on skill and judgmental strategies."



Thinking Critically

"During times of profound change, the learners inherit the earth....

While the learned find themselves equipped to run a world that no longer exists.



Jamie Janover's Photo
Realms

Beware the horseman who only sees through the eyes of his horse!"

Lee Pitts, Columnist

Comparing Logically

To **"Compare"**: *to examine in order to note the similarities in, or differences between/ among things.*

"Logically": *showing clarity and consistency of use of the principles of reasoning.*

Ability to Compare Logically: *formal courses that, in opposition to memorization/regurgitation, require the weighting of options and/or the consideration of both the pro vs. con aspects in solving problems.*

Livestock, Meat and Wool Judging/Grading/Evaluation provide opportunities to rank things from best to worst, to assign grades using memory-standards and to use mental gymnastics to solve prediction equations.



Comparing Logically

"I was a shy teenager who gained self-confidence by being on a judging team. Now, here I am - an outgoing young woman - who has a successful career in public relations.

Judging can help you even if you're not going into an agricultural career. **An eye for details, observational skills, quick decision-making skills, and the ability to defend and justify your decisions** are skills that will serve you well in whatever you choose to do.

Everything I've done goes back directly or indirectly to my judging experience, especially in college. Judging helped me gain confidence in myself and my abilities - that's important in my work and in my whole personal life."

Lorrain Stuart Merrill, Hoards Dairyman

Deciding Independently

To **"Decide"**: *to make up one's mind, to make or reach a decision, and/or to pronounce a judgment or verdict.*

"Independently": *free from the influence of another or others, autonomously, and/or by self-reliance.*

Ability to Decide Independently: *formal courses that involve independent research study or which emphasize use of logic and rationale for problem-solving.*

Livestock, Meat and Wool Judging/Grading/Evaluation provide opportunities for each competitor -- acting independently and using only his/her own opinion -- to make judgments or decisions about relative rank, grade or price/cwt, or consumer acceptability of a product .

Deciding Independently

"I give credit for whatever success I have achieved in the medical profession to my experiences as a member of the livestock judging team at Texas Tech University."

"The **decision-making skills** I learned in judging are the same as those I use – every day - as a surgeon."

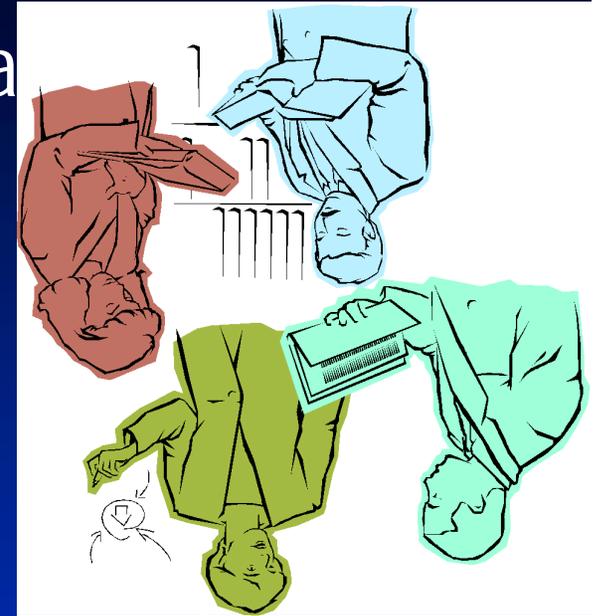


Jack McAninch, M.D.
Chief of Surgery
San Francisco General Hospital
University of California - San Francisco

Deciding Independently

"I recently read a study that says we **remember, short-term**:

- 10% of what we read
- 20% of what we hear
- 30% of what we read plus



But that we retain, **long-term**, substantial amounts of what we read plus hear...only if we do something - **physically and mentally to reinforce it.**"

David Daley, California State University, Chico, California

Solving Problems Rationally

To "Solve": *to find a solution for, an answer to, or an explanation for, a problem.*

"Rationally": *exercising the ability to reason in a sound, sane and logical manner.*

Ability to Solve Problems Rationally: *formal courses involving mathematics, statistical inference, business administration or economics, as well as, agricultural economics, animal nutrition, animal breeding and capstone animal production.*

Livestock, Meat and Wool Judging/Grading/Evaluation provide opportunities to use comparative reasoning, mathematical logic, sound judgment, conformity to an ideal, rank-order principles, memory standards and knowledge integration.





"If the only solution you have is a hammer....every problem begins to look like a nail.

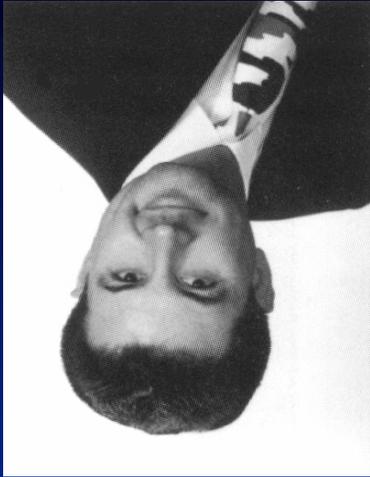
If you have only one tool, no matter what that tool is, and it is used repeatedly, it loses its newness and effectiveness. The single tool solution may be the easiest to fall back on....but the worst to use.

Your toolbox must be **all encompassing** if you are to solve every problem that might arise."



Mack Graves, Latigo, Inc.

Solving Problems Rationally



"My wife, Sondra, and I are partners in a management consulting and professional speaking firm. We publish a weekly newsletter entitled, *Road Signs for Success*[®], a monthly column called *Whitt... & Wisdom*[®] and I give a hundred motivational speeches a year.... what credentials do I have to do this?

I have a B.S. degree from Oklahoma State University in Animal Science....and, more importantly, I changed from a timid, unsure-of-myself sophomore to one who was **confident that I could do anything**, by being on the meat judging team at OSU."

Jim Whitt, Whitt Enterprises, Tulsa, OK

Communicating Effectively

To "Communicate": *to have an interchange of thoughts and ideas; to make known your thoughts or ideas.*

"Effectively": *having intended or expected effect and/or serving the purpose.*

Ability to Communicate Effectively: *formal courses in speech, technical writing and seminar.*

Livestock, Meat and Wool Judging/Grading/Evaluation provide opportunities to communicate in written form (meat judging) and to communicate in spoken form (livestock and wool judging). Writing reasons is a superb prelude to giving oral reasons because "the spoken argument" needs structure, form and organization... that is best perfected by writing the speech, then delivering it.

Communication Skills

Formally Taught In:

- ◀ Speech
- ◀ Technical Writing
- ◀ Seminar

Further Developed Through Involvement In:

- ◀ Meat Judging (written reasons)
- ◀ Livestock/Wool Judging (oral reasons)
- ◀ Academic quadrathlons (oral and written presentations)
- ◀ Student Clubs (if there are speaking/writing opportunities)





EXAMPLE REPORT OF REASONS

REPORT OF REASONS,
INTERCOLLEGIATE MEAT JUDGING CONTEST

SCORE

Contestant No. Example Class Beef Carcasses
 Placings: 1st 4 2nd 1 3rd 3 4th 2

FIRST 4 was an outstanding top and placed over 1 because 4 was higher in quality and would have a higher merchandising value. 4 was a premium Choice versus 1 was a low Choice. 4 revealed a higher degree of marbling in a noticeably brighter colored, firmer ribeye. In addition, 4 had a more bulging, heavier muscled round and was trimmer over the brisket. I recognize that 1 had an advantage in cutability because it was trimmer over the rump and sirloin, loin, ribs and in cod fat. Also, 1 had a larger ribeye.

SECOND In a class pair, 1 placed over 3 because 1 was a trimmer, more muscular carcass that would yield a higher percentage of closely trimmed retail cuts. 1 was trimmer over the loin and rib and had less kidney and pelvic fat. Also, 1 had a larger ribeye and a longer-cushioned, slightly thicker round. I grant that 3 had more marbling in a brighter colored, finer textured ribeye. Also, 3 had a thicker-clotted chuck and was trimmer over the chuck and brisket.

(PRINT OR WRITE CLEARLY)

EXAMPLE REPORT OF REASONS

(PRINT OR WRITE CLEARLY)

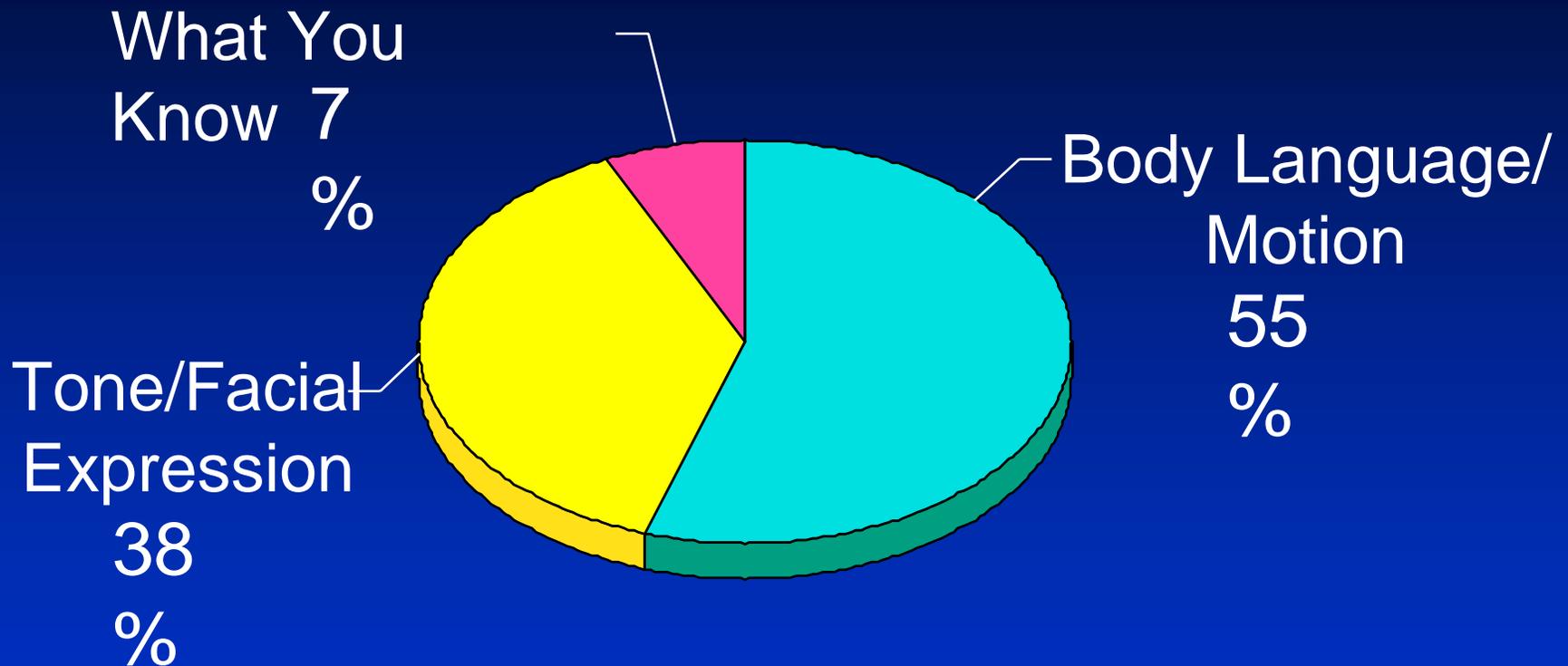
THIRD In another class pair, 3 placed over 2 because 2 was heavier muscled, trimmer and would yield a higher percentage of closely trimmed retail cuts. 3 had a much thicker, more bulging, heavier muscled round, and possessed a larger ribeye and a thicker, more muscular chuck. Furthermore, 3 was noticeably trimmer over the eye and lower rib, sirloin, loin, loin edge and chuck. I fully realize that 2 had a higher degree of marbling (premium Choice vs. low Choice) in a brighter colored, finer textured ribeye. Also, 2 had less cod fat.

FOURTH Even though 2 had adequate quality to place higher as it was a premium Choice carcass, it placed last because it was the lightest muscled, fattest, lowest cutability carcass in the class. 2 had the narrowest, lightest muscled round and sirloin and the smallest eye. Furthermore, 2 was the fattest over the eye, lower rib, loin, loin edge, and chuck.





How to Get People to Say "Yes"



Glenna Salsbury
National Live Stock and Meat Board

Leading Decisively

To "Lead": *to be first, to be ahead, to steer, to guide and/or to show the way, by going in advance.*

"Decisively": *having the power to settle a dispute or doubt in a firm, conclusive, resolute and determined manner.*

Ability to Communicate Effectively: *nothing is provided in the formal course-work offering to encourage students to develop skills in leadership.*

Livestock, Meat and Wool Judging/Grading/Evaluation provide opportunities for individuals on a team to succeed by being "high individuals" and thus, to be emulated and to serve as ex-officio "team captains" through earned respect.

The "Outlook for Future Leadership in Agriculture" Conference

Dr. Lavern Barrett (University of Nebraska) said,
"Research, common sense and experience tell us that many of our agriculture graduates are not ready to lead."

Dr. Bruce Ghiselin (Center for Creative Leadership, Greensboro, NC) said,
"Leadership, rather than management is needed for the more generalized understanding of today's real-world problems."



Team sports create leaders

By Robin Gerber

As someone who took up soccer six years ago at the age of 45, I'm both a victim of pre-Title IX discrimination (no team sports for girls in my youth) and a convert to the importance of the lifetime leadership lessons embedded in team participation. That's why I'm worried about the final report from President Bush's Commission on Opportunity in Athletics, which is being sent today to Education Secretary Rod Paige.

It's too early to know how members of the Bush team will treat the commission's recommendations. But if critics of Title IX prevail, opportunities for men in college athletics could be increased at women's expense. If that happens, thousands of young women could lose a future edge: the powerful and unique leadership training team participation provides.

The commission was formed last year to answer concerns that Title IX — the 1972 federal law that bans

derstanding of teamwork and loyalty.

Marita Fegley, a senior executive at a global professional services firm, played on an all-boys soccer team as a girl. "When boys from other teams tried to pick on me, my teammates were fierce in defending me," she remembers. And if she scored, she was taught to point at the person who assisted her. She points to those experiences when explaining her ability to give others credit and to work collaboratively.

► Team sports build players' confidence.

Ever since my first team experience on the soccer field, I've been

litive spirit.

Late last year, *BusinessWeek* cited two university-based studies showing women to be less competitive than men. The article concluded that women's relative lack of competitiveness would hurt their chances of gaining equality in the workplace. But the study clearly didn't include the younger women on my soccer team. Their fierce and unapologetic competitiveness, something women in my generation were told to squelch as unbecoming, will be propelling them forward long after they leave the field.

► Team sports build courage.

On my coed team, the players

smarter and more patient.

Bank of America's McAlister sums up her transference of sports skills this way: "Tagging up on a fly ball was about squeezing the most out of an opportunity. It was learning that an assist is as good as a basket, and it really doesn't matter who gets the credit as long as the team gets the win."

Her attitude is reflected in the way corporations recruit new talent. At a recent leadership seminar I taught, Mark Lipscomb, a human resources director at a major medical equipment manufacturer, explained how he selected professional employees: "We look for people who were team captains in



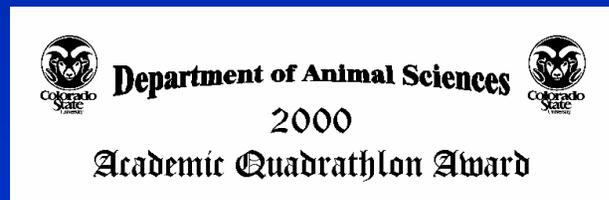
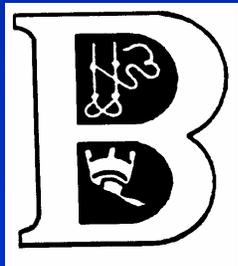
USA TODAY - WEDNESDAY, FEBRUARY 26, 2003 - 13A

Among the extracurricular circumstances in which students can learn to lead and exert leadership skills are **student government, student clubs, fraternities/sororities and... judging/grading/evaluation competitions.**

Although livestock, meat and wool judging/grading/evaluation are "**team sports**", ample opportunities exist for **individuals** on a team to steer, guide or show the way to succeed to fellow team members by making decisions in a firm, conclusive and resolute manner.

Team members who succeed by being "high individuals" in intercollegiate competitions are often emulated by their peers because of their successes; once successful, such competitors have ample opportunity to be **decisive leaders because others then have greater respect for their knowledge, expertise and opinions.**

Animal Science department administrators must insist that, within the B.S. curricula, there are opportunities for students to participate in student clubs (Block & Bridle, Dairy Club, Alpha Zeta, etc.) and intercollegiate competitions (judging, evaluation, show team, quadrathlon, etc.)... to serve as an integral part of the process of developing student leadership skills.





Preparing Graduate Students to Meet Career Challenges in the Meat Industry

Think Critically

Compare Logically

Decide Independently

Solve Problems Rationally

Communicate Effectively

Lead Decisively

Thinking Critically

"To reason about, to judge and to decide by using careful and exact evaluation and judgment."

Graduate students learn to think critically by:

- ◉ Being **allowed**, even encouraged, **to doubt, to criticize, to question** (rather than accepting as fact or truth whatever they read or hear).
- ◉ **Writing and reporting scientifically** (improves clarity of thought and correct application of logic).
- ◉ **Reviewing the literature** (there are good and bad studies; appropriate and inappropriate measures; right and wrong conclusions).
- ◉ **Editing and evaluating manuscripts** (critiquing the work of others).
- ◉ **Debating, discussing, defending thoughts/ideas/opinions** with subordinates, peers and superiors plus learning the art of graceful retreat and tactical concession.





Comparing Logically

"To note the similarities in, and differences between or among, things while clearly and consistently using the principles of reasoning."

Graduate students learn to compare logically by:

- Applying the **scientific method** (with controls and treatments) to detect differences between and among things.
- Using tests of **hypotheses, statistical inference and probabilities**.
- **Grading** papers and exams; **scoring lab participation** of individuals.
- **Auditing** (because essentially all mistakes in GMPs, HACCP plans and animal-welfare programs are logic-based errors).
- **Judging carcass/product shows, speeches, science fairs, posters, record books or positive papers** (learning to rate/rank without bias, prejudice or favoritism).





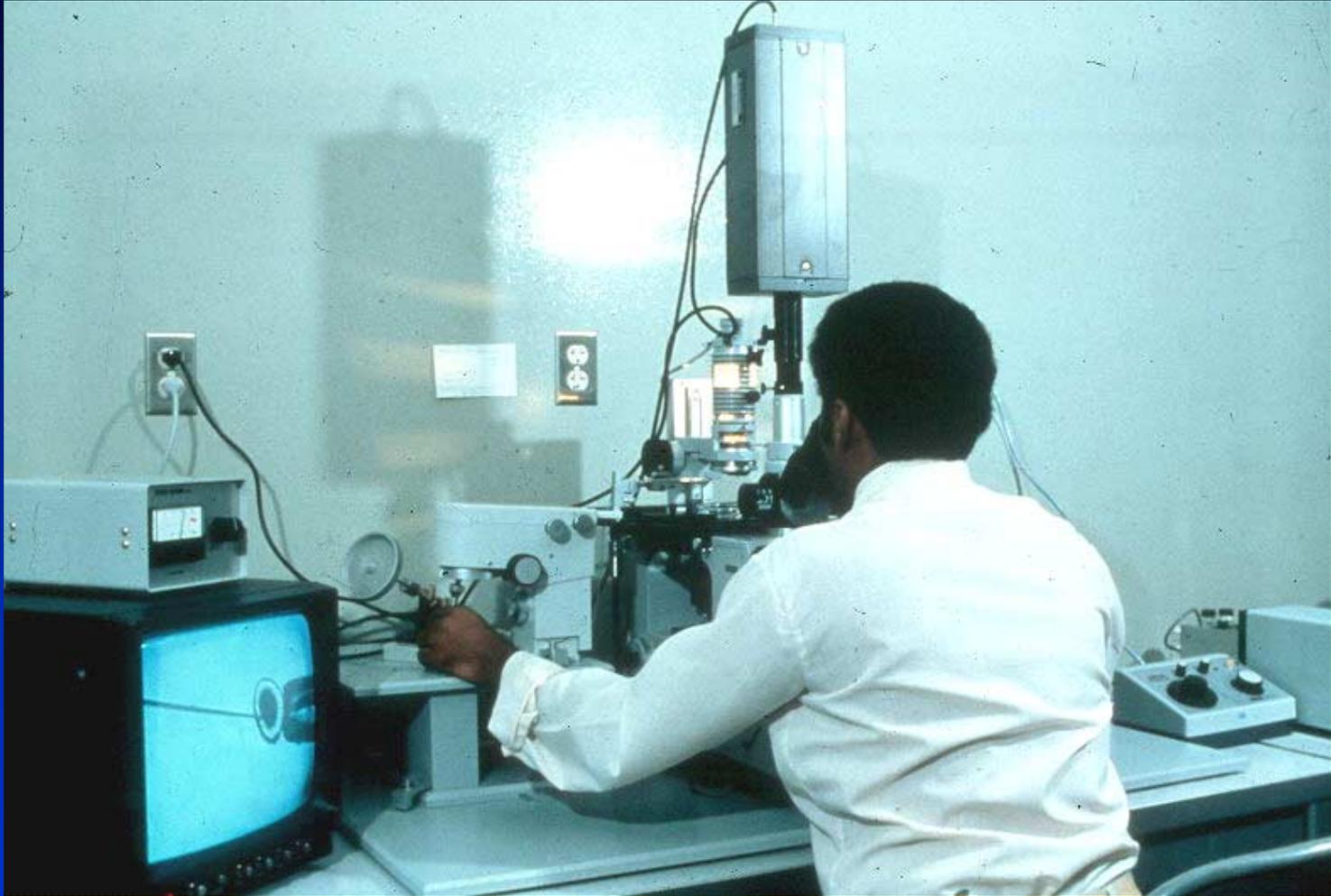
Deciding Independently

"To make up your mind and reach a decision or make a judgment based solely upon your own opinion."

Graduate students learn to decide independently by:

- Realizing they will no longer be "spoon fed" but must **read, debate, question, and- - ultimately- - synthesize an opinion of truth.**
- **Setting priorities**, yet still meeting critical milestones and deadlines.
- **Managing time and resources** in a multi-asking work world.
- Determining that- - with pressure applied- - they can push the envelop, **doing more than they thought could be done.**
- **Making decisions**, when acting alone and as a representative, that **reflect favorably** on the group, section, department, college and university.





Solving Problems Rationally

"To find a solution and answer for a problem by reasoning in a sound, sane and logical fashion."

Graduate students learn to solve problems rationally by:

- **Assessing** the problem and accessing the information, to formulate and implement a solution.
- Assisting with **extension activities** that deal with meat industry problem solving scenarios.
- **Evaluating tests, procedures and protocols** for use in performing a research assay or scientific determination.
- **Developing human capital networks** for present and future assistance in solving problems.
- **Understanding "tool and toolbox" methodologies** as building blocks and practical ways/means to effect a solution.





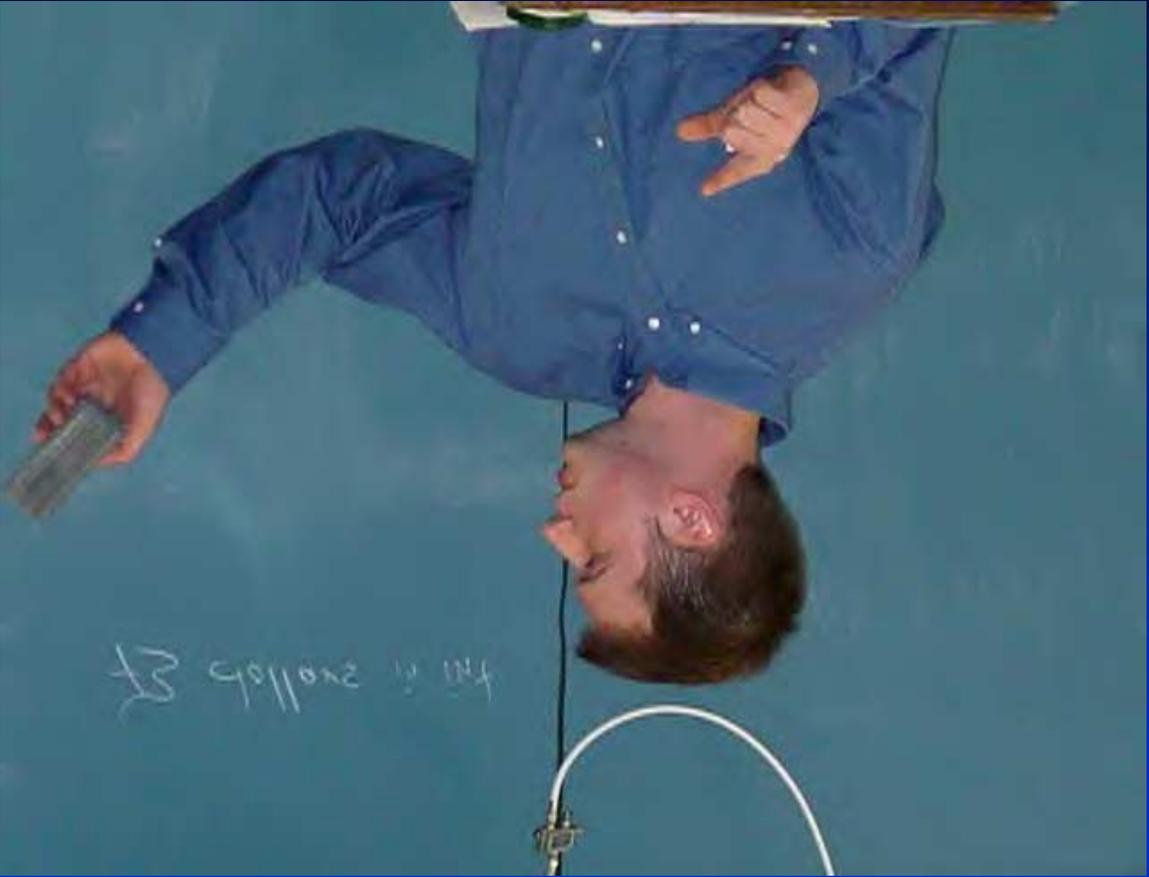
Communicating Effectively

"To make known your thoughts and ideas in a manner that will serve the purpose and have the intended effect."

Graduate students learn to communicate effectively by:

- Serving as a **teaching assistant, extension assistant or laboratory instructor** for a meat science course.
- Developing the **skill of "speaking in different gears"** to assure comprehension, irrespective of the education level of the listener.
- **Writing abstracts, reports and papers** for audiences comprised of members of the lay- public, the industrial complex and the scientific community.
- **Preparing and presenting speeches and posters** at industry and scientific meetings.
- **Interacting with those in attendance** at teaching, research, industry and extension **meetings** (using "key word" conversational skills).





Leading Decisively

"To steer, guide or show the way to (and, to be first and/or ahead of others) by making decisions in a firm, conclusive and resolute manner."

Graduate students learn to lead decisively by:

- Being assigned **responsibility** for entire research projects and serving as project leader from **planning to completion**.
- **Coaching** intercollegiate judging, grading and evaluation teams.
- **Developing team building skills** while working on "company projects" in research and outreach endeavors.
- **Mentoring fellow graduate students** on subject matter, lab techniques, manipulative skills, statistical analyses, etc.
- Serving as a teaching/extension assistant or **laboratory instructor**.







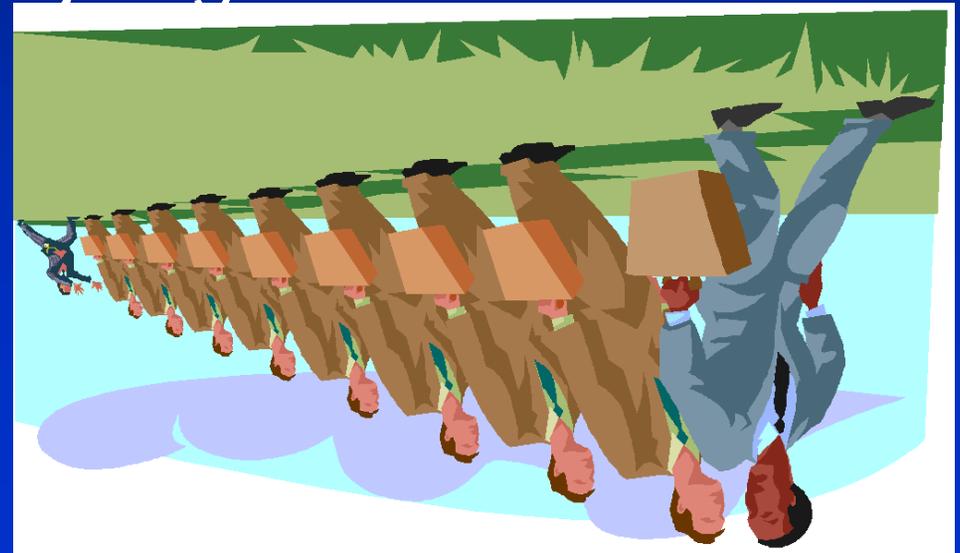


Knowledge, Yes, But Other Things, Too

"A person who devotes all his strength to objective matters will develop into an extreme individualist.....

who, at least in principle, has faith in nothing but his own judgment."

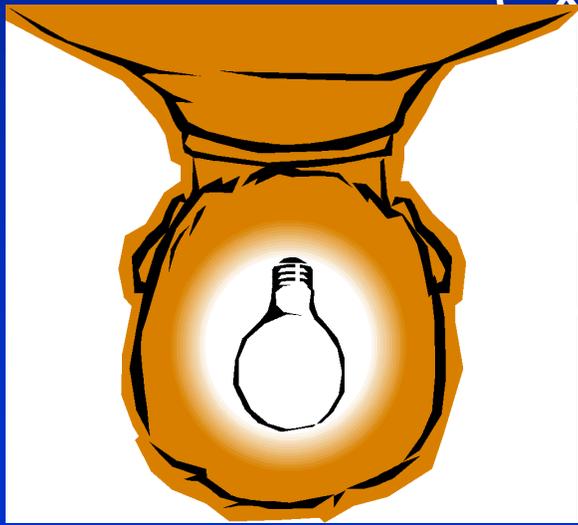
Albert Einstein
(in Gallagher, 2003)



What is a College Education?

"A college education is not a quantitative body of memorized knowledge....salted away in a card file.

It is a taste for knowledge, a taste for philosophy, if you will... a capacity to explore, to question, to perceive relationships between fields of knowledge and experience."



A. W. Griswold (in Campbell, 1972)



