

and degrees granted, the number of lectures delivered and other discrete parameters. It is more difficult to measure the impact of this project in terms of pedagogical changes, quality of graduate student research, impact on agriculture in Heilongjiang and economic returns. A lack of objective criteria for measuring success should not deter the project however.

Evaluation is a crucial component of the project to determine if an arrangement with six participants produces the level of confidence needed in satisfying an agreement between Canada and the People's Republic of China.

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IDEA SHARING SESSION

Oral Presentations

Management by Objectives System Evaluates Administrators Merit

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Vice Chancellor for Academic Affairs

Thomas J. Fider
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University of Minnesota Technical College, Waseca

The University of Minnesota Technical College at Waseca has used a management by objectives (MBO) system within the college for many years. This system requires establishment of agreed upon collegewide goals and objectives from which each administrator develops specific MBO's. These objectives are annually, prepared, reviewed and revised by a committee and discussed and agreed upon by administrators, faculty, and staff collegewide. In addition, each administrator develops appropriate MBO's to meet the needs of the individual administrative unit, and these are agreed upon with supervisors.

After revisions are made, values are agreed upon for each objective. This value ranges from 1 to 10. Factors considered in determining the value relate to

the importance of the MBO to the college or administrative unit and whether the individual administrator will complete the objective alone or involve others to complete it successfully (primary or just monitoring responsibility). There has been collegewide agreement that some types of items (e.g. procedure development) are worth a set range of values.

During the year, the supervisor and administrator review the objectives together at least mid-year and perhaps more often, as is needed or desired by the administrator. Revisions of objectives may be made at this time and a standardized MBO form is used.

At the end of the year, each administrator reviews the MBO's and summarizes the accomplishments made during the year. There is a review session with the supervisor and agreement is reached on this summary. A supervisor then rates each of the objectives on a scale of 1 to 5. Objectives must be totally completed before they can be rated or counted.

Each administrator's position is divided into anchor expectations in responsibility areas of supervision, management functions (planning, organizing, staffing, directing and controlling) university service, committees, teaching, disciplined inquiry and professional development. These areas make up 100% of the individual positions and are the same for each administrator, but the percentage given to an individual is determined by the specific position. Ratings are also given by the supervisor for each of the responsibility areas evaluating performance of the routine aspects of the position.

After ratings are completed, values are multiplied by the performance ratings for each objective. The percent time in each responsibility area is multiplied by the performance rating for that area. The total of these scores provides the final rating score for each administrator.

Scores obtained on the MBO form are the primary input for determining merit and administrators are ranked according to score.

This system is still in the developmental stage. A primary benefit is evaluation on similar administrative criteria for all administrators.

How to Increase Student Motivation In the Classroom

Mark E. Wilson
Associate Professor of Animal Science
William A. Anderson
Professor of Agronomy
University of Minnesota Technical College, Waseca

Motivating students to learn is an essential component of the teaching process. It enhances class participation, topic retention, and stimulates pursuit of meaningful career-oriented activities. Motivating students may be challenging and is often dependent on the instructor's own motivation and enthusiasm.

Each instructor must use different mechanics to use his/her personality to effectively motivate students. However, some common principles that are key motivators for students might include: a) practical demonstrations involving student participation, 2) emphasizing understanding rather than memorization, 3) being positive, 4) innovation and use of unusual techniques, and 5) life or career-related topics. Instructors should focus their presentation methods and topic selection on the student, look at course design and material from a student's focus rather than a teacher's focus.

Learning and retention are positively reinforced by visual and hands-on experiences. Course structure at all levels of education needs to include more hands-on experience for the students. This may require a greater capital outlay for the course, but it will certainly pay for itself in terms of student satisfaction. Student involvement with the educational process builds a greater self-worth and confidence.

One of the greatest crimes in education has been the continuing focus on memorization. Large lecture situations which involve fast paced information gathering become mostly memorization in nature. This does not benefit long-term memory, nor does it help the student to organize and understand facts. Students need a basic vocabulary, but they should be given a chance to utilize this vocabulary in practice through labs, discussions and real life situations to enhance long-term memory. In an introductory animal science class at the University of Minnesota Technical College, Waseca, we have used logic problems to help develop thought process and organization. The problems have been well-received by the students.

Instructors can motivate by always trying to compliment students or capitalize on their strengths. This builds their confidence and will often carry over into other areas of study. An instructor's positive attitude may be an effective motivator.

The instructor can also add a little spice to subjects in doing the unexpected once in a while. Capitalize on your eccentricities to keep students interested and motivated. Use a variety of communications methods when instructing. Innovation shows concern for the subject matter and has a contagious effect on the students.

The last key is to relate topics to life or career opportunities which interest the students. Show them why they are learning a certain topic. Spend some time thinking about which information you actually use in real-life situations — don't dwell on the topics which students may hear in class but never again.

2540 Agriculture College Students' Psychological Profile by Major

Leverne Barrett
Robert Sorensen

University of Nebraska

Faculty at the University of Nebraska College of

Agriculture have just completed a 3 year study of the psychological types of its majors. It was determined that the "typical" student of agriculture is quite different from traditional university students. As a group, agriculture students have less interest and skill in theoretical agriculture but more interest in the practical applications of concepts.

The Myers-Briggs Type Indicator (MBTI) was used to determine student psychological type. The MBTI identifies eight dimensions of personality: introversion or extraversion, sensing or intuition, thinking or feeling, and judging or perceiving. A typical profile of an agriculture student is: more introverted (52%) than extraverted; more sensing (75%) than intuitive; more thinking (63%) than feeling; and more judging (54%) than perceiving.

This information could be used to describe the "mythical average" agriculture college student as one who: prefers to work alone (introversion); takes a realistic, practical approach to problem solving (sensing); chooses to make decisions rationally (thinking); and prefers to have life planned and orderly (judging). This type of student prevails throughout all of the Agriculture College majors.

The production majors of Agronomy, Animal Science, and Agricultural Economics show similarity in that relatively more sensing students are present and less intuitive students. More extraverts than introverts chose Agricultural Education. Natural Resources was chosen more frequently by feeling and perceptive students and less frequently by thinking and judging students. Ag Honors and Mech. Ag majors were most different from other majors. Ag Honors had less sensing than intuitive students, significant at .001 level. There were also less sensing-perceiving and more intuitive-thinking and intuitive-feeling than the college population. Mechanized Agriculture, on the other hand, was the only major with significantly more sensing-perceiving students and few intuitives. Only one-half as many intuitive-feeling students were found in Agricultural Economics and Agronomy as would be expected from the total college distribution.

Other studies by Barrett, Sorensen, and Hartung have shown that ag college teachers are different from their students. These differences present a teaching/learning communication problem, and when teaching style and learning styles are mismatched, student achievement is decreased. One of the typical problems is that many college faculty present information in the lecture format that can become boring. It also tends to be theoretical, at times, rather than material that is practical and useable for today.

Students by Ag major are different. This would imply the recruitment, retention, and teaching strategies that work for one major may not work for other majors. Finally, students need to be recognized as having differing learning styles and interests and not be treated as being the same.

Marketing Survey for Ag Students At Western Michigan University

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Western Michigan University
Kalamazoo, MI

Western Michigan University is located at Kalamazoo, Michigan, and has a student enrollment of approximately 18,000. Agriculture courses have been offered there since its inception in 1903. A general agriculture major was initiated in the 1920s and an agribusiness major in the 1960s. It is the only public institution in Michigan other than Michigan State University to offer baccalaureate programs in agriculture.

The number of students majoring in agriculture remained below 30 for many years, but a surge of interest occurred in the 1970s, and a high of 140 was reached. Since then the numbers of majors has fallen to 40.

The need to attract more students became obvious, and a number of recruitment programs were initiated. One step was for the author of this article to attend a workshop in February of 1986 entitled "Marketing in Academia." It was sponsored by the Kalamazoo Consortium for Higher Education and was conducted by Linda M. Delene, Ph.D., of the Western Michigan University Department of Marketing.

It was suggested that one of the first activities to improve student recruitment be to conduct a survey of the present students in regard to how they became aware of agriculture at WMU and why they chose to major in it.

A brief questionnaire was given to the agriculture majors. Twenty-six of the 40 majors responded. The first question asked was how they first learned that an agriculture major was available at WMU. The most common response by far was the college bulletin. Next was from a friend. The other answers included: from a faculty member, a high school counselor, by taking an agriculture course, and because a related major recommended an agriculture course.

The students were next asked what the primary influences were in their decision to major in agriculture at WMU. The reply given most frequently was the desire to capitalize on an agricultural background. Another common factor was that they lived near WMU. A number said that they liked agriculture and wanted to work in that industry. Several said that they had taken agriculture in high school or community college and wanted to continue in the field.

The third question was what factor(s) influenced them to remain an agriculture major at WMU. Satisfaction with the courses and instructors was cited most often. The personal attention and assistance that could be given in a small program was also repeatedly stated. The interest in agriculture was another answer given by several students.

The last question was how the agriculture program at WMU could be more effectively promoted. The most common suggestion was to work with high schools in general and vocational agriculture programs in particular. Several mentioned more publicity on campus. Others thought more agriculture classes, particularly at night, would help. A number mentioned using present agriculture students and alumni to present the programs to schools and groups.

The whole process was relatively simple and will become a routine feature. The questionnaires given in the future can be designed more effectively based on the results of this initial project. The data generated has been and will be helpful in setting priorities and establishing programs in student recruitment.

The Senior Project —

A New Liskeard Experience

Dave Hope
Farm Business Management Section
New Liskeard College of Agricultural Technology

The Senior Project provides the focal point for the formal educational experience at the New Liskeard College. All senior students develop a five year production and financial plan for a farm, and successful completion is a prerequisite for graduation. The goal of this course is to assist the students in tying together the material learned in a two year diploma program. It provides an opportunity for the student to apply skill and knowledge from several fields of study to a problem. They also become familiar with the planning process.

The project begins at the beginning of the senior year when the students are introduced to the senior project farm. One farm is used each year. Time is allotted for taking soil tests, doing weed counts, mapping the farm and measuring the buildings. Other courses are integrated at this stage. Although the course is organized by the Farm Business Management section, staff from all parts of the College get involved.

Students are allowed to work in pairs or individually. They begin by establishing personal and business goals and by choosing a beginning equity level from \$50,000 to \$150,000. They assume they are buying the farm without chattels. Budgeting is then done to establish enterprises, decide on capital improvements and choose production systems. If a student has a major, he or she must include a component of it in the project. They are expected to integrate physical planning, production planning and financial planning with risk and marketing considerations.

After Christmas, each individual or group makes a preliminary presentation to staff. This is followed by a question period that is used to point out the deficiencies of the project and what level of knowledge is expected. A final written report is presented and the course culminates in a presentation, with question period, in front of a panel of judges from outside the

College. This panel usually includes farmers, someone from a lending institution and an extension worker. The students are expected to demonstrate considerable knowledge of all aspects of the operation proposed. One half of the total mark is a result of the final presentation with the rest coming from the written report and the preliminary presentation.

The course is a success. The main challenge is motivating the students to spread their work out and not leave things to the last moment. Their lack of familiarity in organizing a major project is a constraint. This, however, is just one more reason to expose the students to a project of this type. It also provides them with an opportunity to present their own work in public. Communications courses are organized with this in mind.

The staff find that the project is a learning experience for them as well as a good teaching tool. The students, however, live the Senior Project. It leads them through a wide range of emotional experiences from anticipation to frustration to fear then onto relief and finally pride. They certainly never forget the Senior Project.

Preferred Professional Activities And Rewards for Teaching

Richard Waldren,
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John Rupnow,
Associate Professor of Food Science
Anne Parkhurst,
Associate Professor of Biometrics
University of Nebraska, Lincoln

A survey was conducted of 164 faculty with teaching appointments in the College of Agriculture, University of Nebraska, Lincoln, regarding their professional activities and their preferred rewards for teaching activity. The heads of the 14 departments were also surveyed regarding the activities of faculty within their department. A total 116 faculty and 8 department head surveys were returned. Results of the department head surveys were eliminated from the study due to the lack of response.

The survey queried teaching faculty on 15 professional activities with each activity ranked by the responder in three categories: 1) The preference for the activity, 2) the amount actually performed, and 3) the perception of the importance of the activity as viewed by the department head. Each category was allotted 100 points and no more than 40 points could be given to any activity. The data were statistically analyzed using a two-tailed T-test.

The 15 activities were grouped into 7 categories and tested for ranking differences between actual, preferred, and perceived as explained above. Teaching activities included classroom teaching, student advising, and supervising student research. Research activities included conducting research and seeking research support. Writing activities included

professional publications and presenting papers. Governing activities included committee service and leadership in professional associations. Extension activities included conducting meetings, clientele contacts, community service, and providing information through bulletins, etc. Other activities were professional development through conferences and workshops; and paid consulting activities. Results showed that teaching faculty at UNL perform more teaching and governing than they prefer and more than they perceive their department heads want. They do less research and writing than they want and less than their heads would prefer them to do. They are involved in fewer professional development activities and do less paid consulting than they would prefer and prefer to do more than their heads want. There were no differences with extension activities.

Preferred rewards for teaching included merit salary increases, promotion and tenure, travel funds to professional meetings, and sabbatical leaves. Least preferred rewards were formal and informal recognition, temporary instructional load reductions, and competitive innovative teaching grants. Results were not significantly different between academic rank, tenure status, or percent teaching appointment.

Students' Review Research Articles In Introductory Horticulture

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Oregon State University

Students in our two introductory Principles of Horticulture courses were required to review one to three assigned research articles each week. Most articles had been published within the previous five years in either *The Journal of the American Society of Horticultural Science*, or *HortScience*. Students submitted written answers to questions about objectives and justification of the research, key experimental methods, and important results and their practical implications. These assignments constituted about 33 and 25% of final course grades. During small-group recitations, quality of the research and validity of the author's conclusions were discussed, and relationships between the research and concepts being considered in the courses' lectures were noted.

These two courses are prerequisites for advanced courses in horticulture. Over 70% of the students were horticulture majors, about 66% were sophomores or juniors. Course prerequisites are general botany and general chemistry. About 40% of students said they had no experience reading research articles; while 15% said they read several each year.

Reviewing research articles promotes the development of the higher cognitive abilities of comprehension, analysis, synthesis and evaluation. It thus counteracts the tendency of students to become passive receivers and repeaters of a professor's notes.

Over 90% of the students said this was a worthwhile activity. Asked what they felt were the most valuable things learned, students generally mentioned the realization that few simple "black and white" answers exist for problems encountered in horticulture, and an appreciation of the relationship between research and concepts and information used by horticulturists. They also felt it improved their ability to read research articles and interpret graphs and tables. Overall, this activity develops abilities and attitudes that foster self-education.

Management of a Student-Run Livestock Facility

Mark E. Wilson and Gary Conway
University of Minnesota Technical College, Waseca

Education should not be confined to the classroom setting. Some of the most valuable educational experiences a student receives are from extra-curricular activities involving leadership, decision making, management and organizational skills. Students are strongly encouraged to become involved with managing the facility and livestock at UMW. This involves motivating, coordinating, and educating the students to make proper decisions.

The students at UMW are not paid for their work at the Livestock Facility; it is all on a volunteer basis. Stimulating students to get involved is a building process. Avenues used to motivate student involvement are Livestock Clubs, structured classes and the Announcement Board.

At Club meetings, announcements are made concerning upcoming work. Announcements are made in class associated with specific projects that will enhance the students' skills. For example, a person in sheep production might volunteer to help with shearing the school's flock.

Another method is simply to put a sign up on a bulletin board in the Animal Science Wing. This is primarily used in emergencies. For example, "Hay is being delivered today." Also, students after several quarters recognize problems or work to be done, and seek other students to help them accomplish the tasks. Many times jobs will be completed prior to being announced because of students' efforts. Student involvement may range from sweeping the halls to actual management of the livestock for the weekend. Students are allowed to make the decisions with supervision from faculty and staff. There is often excellent opportunity for students to have one-on-one interaction with the faculty outside the classroom.

One program the Department of Animal Science has instituted to encourage involvement of students with the school's livestock is the "Outstanding Service to Animal Science Award." The name of the student receiving this award is added to a permanent trophy displayed at the Facility. Since the development of this program, the number of students working at the Facility has tripled.

The school gains a benefit from students involved in reduced cost in running the Livestock Facility. Also, students gain pride in the Facility and livestock they help take care of. They feel a greater part of the College effort while receiving an excellent "hands-on" educational experience.

Learning Opportunities Through Swine Farrow Projects

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University of Minnesota Technical College, Waseca

Instruction on the care of sow and litter can be greatly enhanced by allowing students to manage the animals before, during and after farrowing. Many points of instruction can be driven home more effectively by involving students in the farrowing process. However, aside from the purely technical aspect of such a farrowing project, students can also be instructed and measured in their abilities of organization, leadership, teamwork and responsibility.

When students are divided into groups, each responsible for one sow and litter, it provides a natural setting for observing student interactions. Some students will have more knowledge and experience and should be paired with novices. Therefore, the expert farrowers become the teachers and usually the leaders of the group. Others in the group get a chance to organize and schedule tasks, make management decisions (aided by the instructor), and exhibit a sense of responsibility for their animals.

The farrowing project, therefore, depends upon and nurtures students' interactive skills. However, certain mechanical procedures can be used to help the project run more smoothly. A modern farrowing room with adequate heating, ventilation and waste removal makes students want to participate. A prostaglandin product can be used to closely group farrowings, causing all student groups to perform like activities at the same time. This creates a between group interaction and allows students to see problems and progress with all sows, not just their own. Students must be told emphatically and thoroughly in oral and written form exactly what is expected of them. Finally, a note pad should be placed behind each sow and students required to log in and describe their activity each time they visit the farrowing room.

So, learning can go beyond the common absorption of information in the classroom. With the proper setting, such as a swine farrowing project, individual student development can be nurtured along with traditional learning.

33rd Annual NACTA Conference
June, 1987
University of Missouri
Columbia, MO

Animal Production Field Trips — More Than Off-Campus Excursions

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Department of Animal Science,
North Carolina State University

Over half of the students currently enrolled in Animal Science at North Carolina State University come from an urban or non-farm background. Students who have experience with animals generally have worked with only one specie and have little experience with other species. Many students are majoring in Animal Science because they like animals or are interested in pursuing a career in veterinary medicine. Most do not have an awareness of the production practices in the animal industry or the job opportunities available after graduation. This student profile is similar to students in most animal science departments (Edwards, 1968). Field study trips (Bleznek, 1984; Harris and Champney, 1985) have been utilized to help overcome many of these deficiencies.

The purpose of Animal Production Field Study Trips was to broaden the students' exposure to animal agriculture and to show the students production practices that cannot be shown in the classroom. This paper will 1) describe the trip, its planning, funding, organization and evaluation and 2) discuss the unexpected benefits of the experience.

Planning

The Animal Science Teaching Committee agreed that a production field study trip was needed in the Animal Science Curriculum and that the trip should incorporate as many aspects of animal agriculture as possible. This included production of all species (beef, dairy, horses, poultry, sheep and swine), and allied industries (pharmaceutical, slaughter and processing plants, feed mills, etc.). It was also decided that the operations visited should vary in size and management philosophies.

With these general ideas in mind, the state extension specialists were contacted for possible operations/businesses to visit. The specialists were aware of the students' needs and of many stops in the state that would meet these needs. Their aid was invaluable. To view each type of operation/business required traveling approximately 500 miles over three days (2 nights on the road).

The time in the semester for the trip was critical. Taking three days from an already busy semester would have eliminated attendance by several grade conscious students. Therefore, the trips were planned for the end of the semester after the final exams. This time has been well received. Students finish exams, go on the trip and then go home for Christmas or summer vacation.

Mode of travel was debated. Private vehicles and university vans were ruled out because of possible separation and lack of unity. A chartered bus was used

rather than a university bus because of its comfort, luggage storage, insurance, restroom and public address system (PA). These benefits far outweighed the additional cost. The bus used had a seating capacity for 47.

In addition to the production/business stops, representatives from pharmaceutical companies and/or feed companies were involved in programs at meals (companies sponsored several meals). Motel arrangements were booked in advance at reduced rates. Students were assigned roommates with four/room (this also reduced the cost for the student).

Funding

The Associate Dean of Academic Affairs of the School of Agriculture and Life Science provided \$500.00 which was matched by the Department of Animal Science. Each student paid \$50.00. Most meals were sponsored by companies or farms, so there was little other out of the pocket money needed by the students. Many stops also provided refreshments.

Videotaping

A videotaping crew from North Carolina State University's Educational Media Center join the trips and videotaped most of the stops. This was done for two reasons. First, a videotape showing many of the stops and interviews with students about their experience on the trip was used as a recruitment tape for future trips. Second, there were many things that were captured on videotape that can be used in the classroom. Each night during the trip, the tapes were viewed by interested students. This allowed the students to review what they had seen and learned and to see things they may have missed. Edited tapes for the Spring and Fall trips are available upon request.

Credit

Each student was also required to write a thank you letter to at least five of the hosts. Copies of these letters or the stamped letters were then given to the faculty for evaluation. Students completing the trip, the evaluation and thank you letters received an "S" and one hour of credit (used as a free elective.)

Benefits

The objectives of the trips were to broaden the student's exposure to animal agriculture, show production practices in the industry and indicate many of the job opportunities available. Each of these objectives was met.

However, several benefits were not expected. Interest in the teaching program by faculty, students and alumni was heightened. Faculty-student relationships were developed and improved. Alumni interest and support of the school were improved. A work co-op program was set up with several of the operations. Contacts for summer and permanent employment were made. The lines of communication were opened between student, faculty and industry.

Developing such a Field Study Trip requires a lot of time — equivalent to a 2-3 hour semester course. However, the benefits received by all involved make such a trip an essential part of our curriculum.

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IDEA SHARING SESSION

Computer Presentation

A Nursery Simulation Game

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Horticultural Technology,
University of Minnesota, Waseca

The typical nursery crop requires five or six years to reach market size. Obviously this time discrepancy creates difficulties in instructing students on the complexities of nursery operations. Students, within the short class time period, cannot see the long-term effect of cultural practices. For example, will the tree grade be altered if root pruning is performed in the second year, but not the third or fourth? One excellent method of instructing students in crop cultural practices is using simulation models. By using an interactive computer format, students can examine the effect that the combination of various practices can have on the final value of a crop. To provide students with an opportunity to manage a nursery crop from the Liner stage to sale, a nursery simulation program was developed. NURSERY is a simulation of a nursery written into an interactive computer program in the form of a game. Depending on the conditions students select at the beginning or during the game, they can learn (1) the influence of weather on the growth of the crop, (2) the importance of coordinating cultural practices such as fertilizing and pruning, and (3) how cultural practices conducted one season affect that of subsequent seasons.

Integrated Software Applications

Fred Reneau and James Legacy
Department of Agricultural Education & Mechanization
School of Agriculture
Southern Illinois University

This paper reports the class outline and a sample student project of an agriculture microcomputer applications course. The course is a laboratory approach to teaching applications of integrated software for management, record keeping, and retrieval of

agricultural information. Agricultural applications are taught for spreadsheet, word processing, graph, database and communication functions of integrated software. The software package used for the class is the Lotus-Symphony package. The weekly 3 hour laboratory exercises, class quizzes, mid-term exam, final exam and individual student project are completed entirely with the microcomputer. The course is team taught by two faculty, a teaching assistant and several student teaching interns. The course has enrolled approximately 200 students and has been offered for the past three years.

Ruminant Ration Balancing

L.N. Irwin
Southwest Missouri State University

A ration balance program is presented that can be used to balance rations for cattle and sheep on a microcomputer. The user formulates a ration consisting of a roughage, grain, protein supplement, phosphorus source and calcium source on the basis of metabolizable energy, digestible protein, calcium and phosphorus. In this interactive program, the user enters the requirements of the animal and the nutrient compositions of the feeds selected. For classroom use, this program is not used as a substitute for actually learning to work the procedure by hand. Students are first taught how to work the problem and then the computer technique is introduced. The program is used to allow students to check their work and to appreciate the speed and accuracy of the microcomputer. The program is also useful to the instructor in designing problems and making keys.

IDEA SHARING SESSION

Poster Presentation

Advisory Councils

Robert M. Collins
Professor Emeritus
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Waseca

Advisory groups are a source of information and advice on issues important to educators. The dramatic changes in education create a need for educators to obtain this support and assistance. This need has resulted in an increase in numbers and in acceptance of advisory councils in recent years.

The purposes of advisory committees, the criteria for member selection and reasons why members serve are the facets of this complex topic covered in this presentation.

Purposes

The primary purpose of advisory councils in education is to provide input to the educational

program by individuals not usually professional involved in that particular program. The input from the advisory group may include: (1) identifying needs, (2) helping to plan a well-balanced program, (3) suggesting ways to use resources wisely, (4) developing priorities so that the budget fits the needs of the program, and (5) balancing program priorities to the finances available.

Member Selection

Many criteria can be listed for picking competent and effective advisory members. Criteria will be different for different programs and may change over a period of time for the same program.

Some attributes for advisory committee members include: (1) expertise in a field that is allied and useful to the program being advised, (2) empathy with the program, (3) enthusiasm for the field, (4) prestige in the profession, (5) willingness to spend time and effort in advising, (6) good public relations, and (7) valuable contacts.

Advisory-members serve, (1) to help others, (2) to advance professionally, (3) to feel important, (4) to get new interests, ideas, goals and perspectives, and (5) because of a genuine desire to support education.

Summary

Advisory groups have served education well. Members need to feel useful and important. It is necessary to work carefully with them, to use their expertise, and to communicate with them so that they do not feel forgotten or that they are "just for show."

AWARDS BANQUET

NACTA DISTINGUISHED EDUCATOR AWARD

H. Bradford "Brad" Craig is the Associate Director of Academic Affairs, School of Agriculture and Life Science at North Carolina State University at Raleigh, North Carolina. He earned his B.S. Degree in Animal Husbandry from Clemson University in 1949. He received his M.S. Degree in Meats from North Carolina State University in 1956. In 1961 he was awarded the Ph.D. in Meats from Michigan State University. He was appointed to the staff of North Carolina State University in 1961 as an assistant professor Food Science doing research and teaching in Meats.

Dr. Craig is a member of North Carolina State University graduate faculty. He was promoted to Professor of Food Science in 1968. He served as Assistant Director of Academic Affairs and Director of the Agricultural Institute from 1967 to 1973. The Agricultural Institute is a two-year terminal program in Technical Agriculture. He was appointed as the Associate Director, Academic Affairs in 1973.

Brad has been awarded the Honorary State Farmer and the Honorary American Farmer Degree by the

Future Farmers of America. He has also been recognized by the News and Observer of Raleigh as the "Tarheel of the Week." He has been honored by Phi Kappa Phi, Alpha Zeta, Sigma Xi, and Gamma Sigma Delta. He served as president of Gamma Sigma Delta in 1977-78. Brad has been regularly honored for being in the top 25% of the Teaching Faculty.

Dr. Craig served as a First Lieutenant in the U.S. Army 1952-53. He is a graduate of the United States Army Command and General Staff College. He retired as the Commandant of the 3286 United States Army Reserve School in 1980 with rank of Colonel.

Dr. Craig has been active in promoting Faculty Development and Teaching Improvement on the North Carolina State Campus. Students achievement through participation in Honors programs has also received strong emphasis. In the early 1980's he Co-Managed a Minority Research Apprenticeship Program. This program sponsored by USDA and North Carolina Agricultural Research Service funded a nine week program for black high school juniors and seniors to work in a research environment with faculty of the School of Agriculture and Life Sciences.

Brad has served as vice-president and president of NACTA. As president he was responsible for the implementing of the "Teaching Award of Merit" developed by the Improvement of Teaching Committee. Brad and his wife, Doris, have three children: Brad Jr., John, and Nancy.

Previous Recipients		
1976	John A. Wright	Louisiana Polytechnic Institute, Ruston
1977	G. Carl Schowengerdt	Southwest Missouri State College
1978	Murray A. Brown	Sam Houston State University,
1979	Robert A. Alexander	Middle Tennessee State University
	Robert D. Self	University of Illinois
1980	Darrel Metcalfe	University of Arizona
1982	O.J. Burger	California State University, Fresno
	Edward C. Frederick	University of Minnesota, Waseca
	Paul E. Sanford	Kansas State University
1983	Frank R. Carpenter	Kansas State University
	Thomas J. Stanley	Stephen F. Austin State University
1984	Hal B. Barker	Louisiana Tech University, Ruston
	A. W. "Tom" Burger	University of Illinois
	Franklin E. Elderidge	University of Nebraska
	Jack C. Everly	University of Illinois
	Keith Justice	Abilene Christian University
1985	Russell L. Miller	Louisiana State University