

# A NEW CHALLENGE — AGRICULTURE

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Modern day Agriculture is of a dynamic nature: world population continues to increase at a very rapid rate; millions of people are hungry and dying because of a food shortage in many areas of the world, yet Agriculture in the United States is facing over-production, free-market battles, import-export confrontations and currently a very depressed livestock market. These are the "New Challenges" facing the Agricultural industry. Today most people take the food we eat for granted and fail to recognize all the factors involved in production, processing, and marketing of Agricultural products. Consequently interest in the study of Agriculture at Colleges and Universities had declined tremendously in the late 50's and early 60's. This trend has taken a sudden change; thus, enrollment in Agriculture and Agricultural-Related Services has increased during the last several years. Even larger increases are expected in the future.

In the March 15th (1973) issue of *Forbes* it was stated that Agriculture production in the United States will be the difference in the balance of payment we have suffered in the past due to a trade imbalance with foreign nations. In fact, "The New Elite" in Agriculture should forget about the image reflected in Grant Wood's famous painting, *American Gothic*. Today's Agriculturist (farmer-producer) requires a well-educated, independent businessman for whom management (book-keeping) is more important than knowing how to milk a cow.

Mr. Lindley Finch, Vice-President in charge of Agricultural matters for the Continental Illinois Bank states that "Only two percent of our people are actually making their living from Agriculture." That means that the American farmers of this Nation number only a very few million people; therefore, each of us, consumer, producer, educator and laborer, must be ready to face the Challenge ahead of us.

Those of us in the field of education must look at the present condition of Agri-

culture and develop new programs to meet the needs and demands being placed on Agriculture today. We can no longer continue to teach the same type courses that we have been teaching in most University programs for the past fifty years. New programs, new courses and new students are the key factors to improvements in Higher Education. Our students are from a varied background, now with many from the cities. Also we notice a large number of women in schools of Agriculture.

The National Association of Colleges and Teachers of Agriculture must take a leading role in the development of new programs. For example NACTA has been asked to work with the Yemen Arab Republic in a feasibility study in the field of Agriculture. NACTA has grown to the stature of importance in teaching Agriculture at all levels of Post Secondary Education. We no longer are considered to be a group of Non-Land Grant Universities but are a mixture of all segments of Higher Education working together for one cause, a better teaching program for Agriculture.

I am sure each of our respective schools are facing budget reductions and/or reduced new programs. It was recently reported that the proportion of the state budget going to Higher Education will be no greater in 1980 than it is now, regardless of whether we have boom times or bad, Republicans or Democrats in office. The shift toward occupational and career training will be stressed more than a liberal education. The NACTA Institutions responding most readily to this shift in goals will continue to have increased enrollment. Also the Institution which continues to add tenured faculty may find itself facing problems if student enrollment were to drop rapidly as its programs fail to respond to new and changing needs.

We at Middle Tennessee State University have developed new programs and courses as was mentioned this morning by Dr. Omri Rawlins. We expect these programs to continue to attract students. We

must not lose sight of the idea that we are competing for students between Institutions and between Departments and Schools within the same Institution. Higher Education is a very competitive field and Agriculture must become aggressive in recruiting students. Agriculture is the most essential as well as the largest industry in the United States; therefore, why should we be satisfied to let the better qualified students be encouraged to go into Medicine, Engineering, etc., when Agriculture can offer just as much if not more than any of these fields. NACTA must be the leader in this area. Our theme for this year is "Communication Between Agricultural Classroom and the Consumer." Let me stress on you again if we fail to communicate with the consumer we may well fail in being the strong Agricultural Nation we are now. These are times when those of us in Agriculture must stand together and stand tall in the saddle. For example as the United States' biggest export industry, Agriculture will have to earn enough to help pay for the explosive growth in oil imports. If all goes well Agriculture should be earning enough by 1980 to about balance the United States' oil import bill.

Let me challenge each of you to take a hard look at your chosen profession and if it is your main interest you must let people know the importance of Agriculture. As your elected President for the year 1974-75 I will devote my energy to seeing that NACTA is a National Organization: but, each of you will have to assist. We can't let the price squeeze, labor market, shortages and/or surplus reduce our overall concern for Agriculture.

We must press forward to be able to meet the Changes and "New Challenges" facing NACTA. I request and expect your assistance this year. Please feel free to make suggestions, and contact me as you desire.

Thanks again for the confidence the Organization has placed in me.

## IOTA WORKSHOPS AT COLLEGES OF AGRICULTURE

### Evaluation of Instruction and IOTA in Agriculture at Washington State University

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Underlying reasons for involvement of the Washington State University (WSU) College of Agriculture in the IOTA (Instrument for the Observation of Teaching Activities) program can be traced back to events which occurred several years ago, even before development of the IOTA program for higher education.

#### Mandatory Student Evaluation Adopted

In 1962, the College of Agriculture Faculty decided, by a

61% affirmative vote to institute a program of mandatory student evaluation of instruction beginning in 1963. *This vote* was affirmed by department chairmen in 1965 even though a survey of the faculty at that time indicated that many favored voluntary participation in student evaluation of instruction as opposed to mandatory participation. The ground rules of the system were altered slightly in response to faculty comment, but the basic mandatory system continued in use until 1972.

This mandatory student evaluation system was designed to serve a dual purpose. First it was developed to aid the instructor in improving his instruction, and secondly, it was to be used by the department chairmen and the Director of Resident Instruction as additional information for merit rewards. It was felt by many that using the dual purpose system gets the most purposes served with the least effort. The Dean at that time said he personally believed it was better to improve the dual purpose system than it would be to set up a system in two parts, one handled entirely by the instructor and the other handled entirely by administration. Difficulties in handling a dual-purpose system of student evaluation of instruction as it was being used at WSU was appreciated in varying degrees. Some honestly felt it is impossible to have the same instrument serve both to advise the instructor on his teaching and its improvement and to serve as documentation of teaching performance for administration. It was, however, recognized by all that both needs had to be met.

Although the basic purposes and premises of the mandatory system of student evaluation in the College of Agriculture at WSU were the same from 1963 to 1972, there were several changes in the mechanics of the system during this time. Several different forms and procedures were used. The practice of forwarding all results of evaluation from the Department Chairman to the Director of Resident Instruction was discontinued in 1965. Thereafter, the Director of Resident Instruction was to see the results only if, in the judgment of the Department Chairman, there was need for him to see them. The previous practice of director's analysis of results and comparison of instructors was also to be minimized. During the 1965-66 academic year, the completed student evaluations of instruction were sealed in an envelope by the students and were then left with the departmental secretary to ensure anonymity of the evaluator until grades were reported for the course. The instructor then received the envelope from the secretary, studied the results, and wrote a brief report to the department chairman describing the strengths and weaknesses. Subsequently, the instructor and the chairman met to discuss the memo and the raw scores. Similar procedures were used through 1971.

The action taken by the College of Agriculture Faculty in the early 60's for mandatory student evaluation of instruction was, to a certain extent, pioneering and WSU drew much favorable comment for its courage to undertake the policy. There were also, of course, those who feared this policy as a threat to academic freedom and the perversion of good teaching to a popularity contest. To undertake this procedure called for a test of faith: faith of the instructor in the ability and capacity of the students to render an objective and realistic evaluation; faith of the student in the pledge that these ratings would be held strictly anonymous; faith of the instructor that his chairman would not use the evaluation against the instructor but rather for self-improvement of teaching and for rewarding excellence of instruction; and faith of the chairman that the Director of Resident Instruction would likewise hold to the chairman's commitments and keep the information for administrative purposes within the family.

#### **Mandatory Student Evaluation Questioned**

Although the vast majority of the faculty continued to support the need for some means of evaluation of instruction for both improvement and administrative purposes, dissatisfaction with the dual-purpose mandatory student evaluation system mounted. In May, 1971, members of the Forestry Department with some representatives from Soils, Entomology and Plant Pathology met with the Director of Resident Instruction over dissatisfactions with the then existing system of student evaluation. They pointed out that approximately 15 members had signed a petition to protest formally the existing system. They urged that dialogue occur between administration and faculty. They noted that the signers were not opposed to student evaluation per se, but were generally dissatisfied with the system then being used, especially the mandatory nature of the system. There appeared to be a lack of administration response to re-

quests and the group wanted more to do with evaluating themselves especially for the purpose of self-improvement. They wanted freedom to use evaluations which were more relevant and adapted to each instructor's particular instruction. Some felt that students were ill-prepared to evaluate course content. It was felt that in this area one needs the help of his peers. It was, therefore, urged that evaluation consider the complete picture or the total role of the teacher in higher education rather than only the fragmentary viewpoint of students with their limited experience and competencies.

Questions of effectiveness, influence on faculty and student morale, and the use of student evaluation in the teacher reward system were being raised. Several paradoxes seemed to exist. While faculty were encouraged to think that teaching in agriculture was superior to that in other areas on campus, faculty salaries in agriculture continued to decline as compared to faculty salaries in other areas. Even though most faculty indicated they used student evaluation to improve instruction, students in some classes reported little improvement in the classroom. Chairmen asserted they used student evaluations as supportive documentation in annual review, yet many faculty felt that teaching performance was not rated equally with research performance in promotion, tenure and salary considerations. Under these circumstances it was thought desirable to review the entire program and consider possible revisions of it.

In the fall of 1971 a Committee on Student Evaluation of Instruction was established because of the considerable discontent among faculty with the system of student evaluation of instruction then in use. The Committee was composed of one faculty representative from each department in the College of Agriculture and three students from the College at large. It was charged to review the system of student evaluation of instruction then in use and make recommendations regarding a program of evaluation to be followed in the future in the College of Agriculture. Evaluation, both for improvement of instruction and for administrative purposes was to be considered. The Committee was to explore several means of evaluation and recommend the priority for implementation of each.

The Committee met 16 times. During these meetings, the viewpoints of faculty, students and administration were heard directly or indirectly by questionnaire and through the appointed representatives. A wide range of published material was reviewed and proposals for complete evaluation procedures were presented by Committee members and analyzed by the Committee as a whole.

Among the Committee's findings and conclusions reported in the spring of 1972 were the following. Student evaluation is only one of several means of measuring teaching effectiveness for administrative purposes. When it is used, instructors should be encouraged but not required to share the evaluation results with their department chairman. Evaluation by colleagues, classroom visitations by the department chairman and/or the Director of Resident Instruction and senior student-department chairman discussions initiated by the chairman were all recommended as useful alternate methods of evaluating teaching effectiveness for administrative purposes.

#### **IOTA Investigated for Improvement of Instruction**

The Committee on Student Evaluation of Instruction concluded that student evaluation can be a useful tool for improving instruction and that all instructors should be encouraged to use it as one of several methods of improving instruction. Evidence suggested that voluntary faculty participation leads to more thoughtful usage of results from student evaluations that are conducted. They therefore recommended that all future student evaluation programs in the College be voluntary in nature. The Committee also considered other methods of evaluation available for faculty concerned with improving instruction. Evaluation by colleagues using the IOTA program and suggestion boxes as a means of obtaining student feedback were suggested. The Committee recommended that their usefulness should be researched and their adoption considered.

Shortly after the report of the Student Evaluation of Instruction Committee, its challenge to research and consider other methods of evaluation for improvement was accepted by the Committee for Improved Instruction. This Committee is a permanent committee of the College of Agriculture and consists of six members, each appointed for a three-year term. One of the members of the Committee had attended a NACTA sponsored IOTA workshop held in February, 1972 in Tempe, Arizona, and was very optimistic about the potential for use of the IOTA program to improve instruction in agriculture at WSU. He conducted seminars on the campus to inform colleagues and administrators of the IOTA program. It was found to be very difficult to totally and clearly explain IOTA in a one-hour seminar. Very few people came away with an understanding of what IOTA really was. IOTA is very difficult to explain and can only be fully understood by experiencing it. However, the individual who had attended the February, 1972 workshop was able, through some enthusiasm for the program, to generate sufficient interest to warrant further exploration. After considerable discussion, the Committee for Improved Instruction, in December, 1972, recommended to the Director of Resident Instruction that we proceed toward implementation of IOTA in the College of Agriculture at WSU. To accomplish this, the Committee proposed that additional people be sent to attend IOTA workshops and that, if possible, we should have some people trained as IOTA leaders so that we could help conduct our own workshops. This would also provide first-hand IOTA experience by more people and more input into an eventual decision regarding complete implementation of IOTA.

The faculty member from the Department of Animal Sciences, who had attended the February, 1972 NACTA-IOTA workshop, and a second individual from the Department of Agronomy, who had not attended a previous IOTA workshop; both participated in an IOTA workshop in Tempe, Arizona, in January 1973. Our third IOTA workshop participant, from the Agricultural Economics Department, attended the NACTA sponsored event in Cobleskill, N.Y. in June, 1973. Acting on the recommendations of these three people, and with the support of the Director of Resident Instruction, the Committee for Improved Instruction decided to plan to sponsor an in-house IOTA workshop for WSU College of Agriculture faculty, if a minimum of 20 instructors made a commitment to attend.

The IOTA program has been described previously (Moody and Deever, 1973; Moody, 1974a; Moody, 1974b). IOTA identifies seven areas of competence defining the role of the teacher in higher education. The WSU College of Agriculture decided to implement the IOTA program on an experimental basis for improvement of instruction. Some of the potential advantages of IOTA appeared to be:

- IOTA's only goal is improvement of instruction.
- IOTA is not to be used for administrative purposes.
- IOTA is a program of colleague assisted self-evaluation.
- IOTA is a nationally accepted criterion of the tasks of the teacher.
- IOTA is a criterion referenced instrument for the assessment of teaching competence, not norm referenced.
- IOTA is analytical, not comparative.
- IOTA is objective, not subjective.
- IOTA is specific, not general.
- IOTA is teachers and administrators working and participating together toward improvement of learning for students.
- IOTA is a professional approach to accountability.
- IOTA is a clinical approach to assessment and instructional improvement.

#### IOTA Workshop Conducted

The planning, organization, direction and follow-up of the WSU IOTA workshop was carried out by the already existing Committee for Improved Instruction. It is essential that such a group accept responsibility, not only for the details of the workshop itself, but more importantly for follow-up if IOTA is ever to be implemented and used actively within a faculty.

It was decided by the Committee that the workshop should be scheduled during a time when University classes were not in session in order that faculty participants could devote all of their

time to the workshop without interference from other duties, especially teaching responsibilities. The *specific dates chosen* were March 30 and April 1 and 2, 1974, a Saturday, Monday and Tuesday. The workshop was scheduled to run from 8:00 a.m. to 6:00 p.m. each day. These were the first three days of the spring vacation break at Washington State University. Saturday, Monday and Tuesday were chosen in order to minimize breaking up the vacation period and to permit those who wanted to participate in other activities during the break period to do so.

In late November, after the dates were set, the Director of Resident Instruction discussed the upcoming IOTA workshop with department chairmen and urged them to encourage their faculty to participate. No threats or promises of rewards were stated or implied. The faculty members who had attended previous IOTA workshops discussed the program with some of the departmental faculties. A description of IOTA and a call for workshop participants were included in the December 3 issue of a periodic news sheet published by the Committee for Improved Instruction. This was sent to all College of Agriculture teaching faculty. It was followed by a memorandum from the Chairman of the Committee for Improved Instruction to all teaching faculty members. Those interested in participating in the workshop were asked to make at least a tentative commitment prior to Christmas. It was necessary to have such a commitment from at least 20 of the College's 120 teaching faculty before the Director of Resident Instruction would approve funding the workshop at a projected cost of \$75 per participant. Forty-one people showed an interest in participating with at least 30 of these being firm commitments. The decision to proceed with the workshop was made.

Dr. James Carpenter, Director of the National IOTA Program at Arizona State University in Tempe, Arizona, was contacted and dates were reserved. Three meeting rooms were reserved. Audio-visual equipment and other supplies were ordered. Classrooms for observation of teaching were arranged for. Since classes at Washington State University and in the local high school were scheduled to be recessed for spring break, it was necessary to set up classroom observations elsewhere. The University of Idaho at Moscow was chosen. The Director of Resident Instruction in the College of Agriculture at Idaho provided invaluable assistance by contacting individual faculty members throughout his university and soliciting their cooperation and agreement to permit observers in their classrooms on April 1 and 2. Due to lack of classes at the University of Idaho on Tuesday, it was necessary to contact administrators at Moscow High School and arrange for five classes there for April 2. A total of twelve classes were arranged for each day. Classes observed were very diverse in nature and included courses such as Algebra, Environmental Science, Spanish, Wildland Resource Conservation, Social Movements and Horse Production. They ranged in level from high school freshmen classes through graduate level seminars. Other items of pre-workshop preparation included arranging for coffee breaks and meals, housing and transportation for the workshop leaders and secretarial help.

The workshop was conducted similarly to that sponsored by NACTA held in Cobleskill, N.Y. in 1973 as described by Ahlrichs (1973). The workshop began with 30 participants. Twenty-nine completed the three days. All participation was voluntary. Participants represented 10 different departments within the WSU College of Agriculture with the largest number (9) being from Animal Sciences. There was one administrator and two participant guests from the University of Idaho (Animal Industries Department). All participants were very faithful in their attendance during all three days even though the workshop schedule was a very rigorous and demanding one. The participants also represented a wide range of age and experience. They had in common a concern about improvement of teaching. They participated with the sole purpose of seeking *improvement in* instruction. Some had heavy teaching loads; others were primarily researchers with some teaching assignments. Some were opposed to student evaluation and were looking to other sources for help in directing their teaching activities. Some were recog-

nized for their teaching ability, others were aware of their own limitations. All of the participants were individualists and not hesitant to state their position. A few were recognized in the College of Agriculture as being rather hard-nosed and maybe even super critical. In fact the students of one of the workshop participants had, on an earlier occasion, presented him a barbecue apron with these words: bitch, bitch, bitch!

The group consisted of capable individuals, many of them being outspoken and stubborn. They were not ready to accept something that they weren't convinced was worthwhile.

Workshop leaders were Dr. James Carpenter and Dr. Merwin Deever, presently the Director of Educational Research and Services at Arizona State University and one of the original founders and developer of the IOTA program, respectively. In the words of Dr. Deever. "We came to help you do better what you each want to do in your respective self-improvement of teaching program." We feel we are especially fortunate to have had the help and guidance of two dedicated, highly trained and able workshop leaders with this type of philosophy.

### IOTA Workshop Evaluated

At the close of the workshop each participant was asked to give an assessment of the workshop using an IOTA evaluation form. An assessment was requested covering the following areas:

- Mechanics of the Workshop
- Completeness of Workshop Material
- Skill of Consultants in Conducting the Workshop
- In What Ways, if any, Did the Workshop Help You
- Other Comments
- Suggestions

Each participant was asked to rate the item as follows:

- X = Reflects the attainment to a High degree
- Y = Reflects the attainment to a Satisfactory degree
- Z = Reflects the attainment to an Unsatisfactory degree

A few comments about the ratings and the reactions of the participants at that stage of their experience with IOTA are interesting and will indicate the diversity of the WSU group.

#### Mechanics

- 15 rated it High
- 9 rated it Satisfactory

Some of the comments were:

- "Some problems with lack of knowing the objectives"
- "It was well organized. There were no lags or confusions"
- "They need new films"
- "The films could have been more agriculture oriented"
- "The room situation was adequate"

#### Completeness of Workshop Material

The workshop material consisted of the packet of materials handed out at the beginning of the workshop and included such *items as the workshop manual, standards for scale definition and description construction, tips for observers, the pre-observation conference, the role of the instructor in higher education, interview scales, and various worksheets.* The packet of materials was called the "instrument" and the participants soon learned that their instrument and its proper use was the focal point of the workshop.

Sixteen participants rated completeness of workshop material "High"; eight rated it "Satisfactory." Comments ranged as follows:

- "It was complete as described at the start"
- "This was the worst area"
- "I had all I was called upon to use"
- "I wonder why some other scale items were not considered"

#### Skill of the Consultants

Fifteen rated the skill of the two IOTA consultants as "High"; eight rated them "Satisfactory." Comments covered a wide range and included the following:

- "Outstanding"
- "They were quite narrow in their willingness to have definitions challenged"
- "Worked well together; gave excellent workshop"
- "There were some questions on explanation of certain points"
- "I would like more direct answers to questions with specific examples"

#### Did the Workshop Help You

Thirteen rated this item "High"; six rated it "Satisfactory."

The comments at the end of the workshop are enlightening, particularly when viewed in light of day by day reactions during the workshop. For example, one participant was tempted to drop out of the workshop at the first coffee break on Saturday; no one expected him back on Monday but he returned. By Tuesday evening he had made a 180° turn and was ready to try out the instrument in the classroom. Comments included the following:

- "It will be quite useful for self help only"
- "I helped gain insight in what to look for in a teacher"
- "It sharpened my ability to observe classroom happenings"
- "It opened a new batch of ideas to try"
- "It made us look at ourselves"
- "It offered self-improvement"
- "It provided three days of thinking about teaching and association with colleagues"
- "If I think about teaching, that alone is a step towards improvement"

#### Other Comments

- "I hope there is a follow-up on this"
- "I feel the workshop was of benefit to me"
- "Very worthwhile"
- "We all came in complaining, but it at least eased off by Tuesday"
- "Have come a long way towards accepting at least the concepts"

#### Suggestions

- "Clarify definitions of scales"
- "Better films"
- "Develop scales more applicable to college teaching"

### After the IOTA Workshop

#### IOTA Observations

At the close of the workshop the participants were in agreement that we should have some immediate follow-up and not let what we had learned be forgotten. Those who were teaching classes during the spring semester were urged to invite IOTA observers into their classroom. Other workshop participants were urged to volunteer as observers.

In a memorandum of April 4, just two days after the workshop, Director B. R. "Rod" Bertramson indicated that the Committee for Improved Instruction under the direction of its Chairman, John Froseth, would coordinate the observations. Director Bertramson asked each workshop participant "to contact John indicating his or her desire to proceed and indicating whether he or she will select the two-person team or ask John to arrange for such a team from our IOTA Workshop group."

During late April and May observations were made to give the workshop participants experience in the use of the IOTA instrument and to provide a basis for a follow-up evaluation.

Although the observations were made primarily in classes taught by those who had gone through the workshop, a few observations were made in courses taught by non-IOTA instructors because these instructors specifically requested the observations.

#### Survey of IOTA Participants

On May 31 a three page questionnaire was sent to the IOTA workshop participants to get further feedback on their experience as an instructor who was observed; as an observer; and as a person who had discussed IOTA with colleagues who were not IOTA participants. Twenty-four of 29 workshop participants returned completed questionnaires.

##### Results:

Nine workshop participants had a team come in to observe their class; fifteen did not for reasons such as: no class taught (6), no convenient time (6), or no one asked to come in to observe (3).

Nineteen served as observers; four did not, either because they didn't have time or were not asked to observe.

Eighteen had discussed IOTA with other colleagues; five had not.

#### Reactions of Observers

Of those who had observers visit their classes, three said they were a bit reluctant about the observation. Five of the eight instructors said they made some effort to do a better than average job in teaching because of the team coming in. The efforts in-

cluded placing a greater emphasis on the things the instructor knew were to be observed. These included involving the students in formulating the day's objectives, getting greater student participation, asking more questions during the lecture, more review of the day's material, etc. . . One instructor made a special effort to lecture in the same manner as other lectures.

Three instructors said they made adjustments or changes in their teaching after the observations. The changes included giving more attention to alternatives to the lecture format and more attention to visual aides. Two other instructors said they got several ideas about adjustments to be made next semester.

The useful information that the instructors gained from the observations and pre-and post-conferences included suggestions on visuals, the need to individualize according to student needs, and the impression that most benefits are gained before the observations by prior study of the scale items.

All of the instructors felt they were objectively observed for purposes of improvement rather than being evaluated.

The classes observed included eighteen lectures, one laboratory, and two graduate seminars.

The difficulties in applying the IOTA instruments to the observations included:

- problems with semantics (at least 6 mentioned this). Words such as many, few, several, etc., were especially mentioned.
- the suitability of the scale items to college instruction in general
- unobservable scales
- problems with interpretation of some scales, such as, individualization of instruction
- difficulty in applying the instrument to classes such as seminars and labs

Those who observed instructors who had not been through the IOTA workshop felt that while these instructors accepted the observations reasonably well, there were difficulties in using the instrument with someone not familiar with it. These instructors saw little value in the experience. One observer felt the observations with non-IOTA instructors did have value and provided a faster way of learning about IOTA than the workshop route.

#### Discussions with Colleagues

Eighteen of the IOTA workshop participants had discussed IOTA with other colleagues. Eleven found their colleagues interested in IOTA; three said their colleagues were not interested and in fact some had a negative attitude.

#### Another Workshop

Fifteen of those who had gone through the WSU workshop said they were in favor of co-sponsoring another workshop with our neighboring institution, the University of Idaho. Three were not in favor of another workshop. There was a strong recommendation among those who favored another workshop that we first take time to evaluate the impact of the workshop held in April. They definitely urged that we use the IOTA program for at least one semester and then take another look at the advisability of sponsoring another one. They also suggested that we refine and revise some of the scale items before more extensive use is made of the IOTA instrument. One instructor suggested giving more attention to whether the items that rate high on the IOTA scales will, in fact, improve learning.

## Experiences With IOTA in Agricultural Courses at the University of Nebraska-Lincoln

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An IOTA (Instrument for the Observation of Teaching Activities) workshop was held at the University of Nebraska-Lincoln in January 1974. Our objective was to improve instruction and IOTA appeared to be an objective instrument to assess present teaching activity. About one-third (33) of the teaching faculty of the College of Agriculture were invited to attend the work-

#### Further Comments

One instructor cautioned against the potential tendency of administrators to use the instrument as an evaluative tool. In other words, the total score of one instructor should not be compared with the score of another instructor. Another instructor felt that the IOTA instrument will work well in addition to student evaluation. One person was concerned that instructors might place over-emphasis on teaching methods and overlook subject matter.

#### Future IOTA Plans

Future plans concerning implementation of IOTA at Washington State University include the following:

1. Revision of some of the scale items and scale descriptions by an ad hoc committee of IOTA workshop alumni.
2. Review and test the revised scales by the workshop participants.
3. A meeting of the workshop participants to discuss our experiences with IOTA.
4. Going beyond the observation stage and begin to use the interview scales and technique.
5. Giving consideration to an orientation, rather than a full-scale workshop, to acquaint more instructors with IOTA.
6. Making preliminary plans for an IOTA workshop in the Spring of 1975 sponsored jointly with the University of Idaho.
7. Plan an implementation or refresher workshop, probably one day in length, for those who went through the workshop this spring.

One WSU agriculture faculty member has attended an IOTA Leadership Training Workshop and hopefully he will be able to assist in conducting future workshops.

#### Summary

The College of Agriculture at Washington State University had a mandatory program of student evaluation of instruction from 1962 to 1972. It became voluntary in 1972 and other means of evaluation for improvement were sought. The IOTA program of peer assisted self-evaluation was investigated. Three faculty members attended IOTA workshops elsewhere. As a result of their experiences, and on the recommendation of the College's Committee for the Improvement of Instruction, an in-house IOTA workshop was held in the spring of 1974.

The workshop participants at WSU were generally enthusiastic about IOTA and are going forward with its implementation for improvement of instruction. Efforts are being made to adapt it to the local situation and to revise it to satisfy needs of those who will use it. The implementation of IOTA in agriculture will be paced to suit the faculty. It is their project. Its only use will be for improvement of instruction. Other methods of evaluation, including voluntary student evaluation, will continue to be used for administrative purposes.

- 1 Professor of Agricultural Economics.
- 2 Associate Professor of Animal Sciences.

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shop. Following the workshop and its evaluation, an ad hoc committee was appointed by the Dean of the College of Agriculture with the charge to design an implementation plan for IOTA and to involve additional faculty members. This paper is a report on the IOTA experience at the University of Nebraska-Lincoln since that workshop.