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EVALUATION OF A GRADUATE PROFESSIONAL IMPROVEMENT PROGRAM, 1965-1966.

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TO EVALUATE THE GRADUATE PROFESSIONAL IMPROVEMENT PROGRAM, JOINTLY SPONSORED BY THE GENERAL EXTENSION DIVISION AND THE INSTITUTE OF AGRICULTURE OF THE UNIVERSITY OF MINNESOTA, THE INVESTIGATORS ADMINISTERED A SURVEY QUESTIONNAIRE TO PARTICIPANTS, THEIR EMPLOYERS, AND THE FACULTY. PARTICIPANTS WERE SURVEYED BOTH BEFORE AND AFTER THEIR COURSES, WHICH INCLUDED GRADUATE DEGREE CREDIT COURSES, CERTIFICATE CREDIT COURSES, AND NONCREDIT SEMINARS. THE PARTICIPANTS WERE PROFESSIONAL WORKERS IN THE FIELDS OF AGRICULTURE AND AGRICULTURAL EDUCATION, SUCH AS EXTENSION PERSONNEL, AGRICULTURAL TEACHERS, HOME ECONOMICS TEACHERS, FORESTRY PERSONNEL, AND PROFESSIONAL EMPLOYEES IN AGRIBUSINESS AND INDUSTRY. ALTHOUGH THERE WAS A CONSENSUS THAT THE COURSES FULFILLED THE STUDENTS' EXPECTATIONS AND EDUCATIONAL NEEDS, MORE INVESTIGATION IS NEEDED BEFORE A FINAL DECISION CAN BE MADE ABOUT THE PROGRAM SINCE THE ENROLLMENT WAS CONSIDERED TO BE LIMITED AND UNREPRESENTATIVE. (JA)

EVALUATION

of

GRADUATE PROFESSIONAL IMPROVEMENT PROGRAM

Sponsored by
University of Minnesota
Institute of Agriculture
in cooperation with the
General Extension Division

1965-1966

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CONTENTS

GRADUATE PROFESSIONAL IMPROVEMENT PROGRAM

Description of the Study

The Graduate-Professional Improvement Program of the Institute of Agriculture, offered in cooperation with the General Extension Division, was an experiment in graduate level courses at off-campus locations during the 1965-1966 academic year. The program included courses at three levels:

- Graduate degree credit courses;
- Comprehensive professional improvement, certificate credit courses;
- Short, intensive professional improvement seminars, non-credit.

The courses were selected to serve the needs of professional workers in the fields of agriculture and agricultural education; in particular, extension personnel, vocational agriculture teachers, home economics instructors, forestry personnel, and professional employees in agri-business and industry. A list of courses and enrollment figures appears at the end of this paper as Appendix "A".

Procedure of the Study

In order to evaluate this program, a three-way study was designed:

- A survey of students at the beginning and again at the end of the course;
- A survey of the employers of the participating registrants; and,
- A survey of the faculty.

The survey questionnaires used for the students and employers, as well as the guidelines for the faculty appear at the end of this paper as Appendix "B".

The pre-course questionnaire for students was distributed by the instructors during the first meeting of the class. A follow-up mailing was made to each student whose questionnaire was not returned from the first distribution.

The end-of-the-course student evaluation questionnaire was mailed to the students with a stamped, self-addressed envelope. The respondents were assured of the anonymity of their responses.

Similarly, an end-of-the-course evaluation form was mailed to the employers of the participants whose names had been listed on the registration forms. One follow-up mailing was made to employers not responding the first time. Where the employer was listed as the University of Minnesota, no response was solicited.

The instructors' guidelines were distributed to the faculty before the term in which a course began and again at the end of the course term. In the latter instance the instructors' evaluation was requested.

Although it was recognized that this effort at evaluation could produce, at best, an ad hoc description lacking a claim to the formalized steps and standardized measuring instruments of a controlled experiment it was decided by the committee members that this would be useful. The report in these pages is a description claiming some objectivity because it is based on the product of consensus on two levels. First, the questionnaires and guidelines used were prepared in discussion with the committee members, and therefore these instruments reflect a consensus of informed judgments. Second, the findings reported in these pages record the responses of the three groups surveyed: the students, the employers of the students, and the faculty. The finding that there is some consensus in the evaluation of the experience in the courses, particularly between faculty and students, although each group proceeds from a different set of expectations and frame of reference, may be submitted as a strong affirmation of the usefulness of the evaluation.

The administrative responsibility for registration and record keeping for courses carrying degree and certificate credit was lodged in the Department of Off-Campus Classes of the General Extension Division; the parallel responsibility for the short courses was carried by the Short Course Department of the Institute of Agriculture. Although the original plans for evaluation included all the facets of the program, it became clear that record keeping and faculty involvement in detail varied between the graduate credit courses and the short courses. The report includes some information on the short courses but primarily covers the graduate credit and the comprehensive professional improvement (certificate credit) phases of the Graduate Professional Improvement Program.

Summary of the Evaluation

The participants in the Graduate Professional Improvement courses during the 1965-1966 year were primarily drawn from educational institutions, and therefore generally not representative of the agricultural industry and business fields. Consistent with the nature of the program, the student participants had high educational background and professional occupational status; they were generally older than the typical on-campus Evening Class student.

Perhaps the finding of greatest relevance to the continuance of this program and for continuing education generally is the mutual consensus that the courses fulfilled the students' expectations and educational needs, although the frame of reference for the instructors' presentation of the courses was theoretical and that of the students was practical. This is explained by the faculty report that vigorous discussion, pursued by highly motivated students with clearly articulated information needs made possible

the extension of the general principles and the generalizations to the practical applications. This observation of the faculty also identifies the major difference between on-campus graduate level courses offered for the typical fully matriculated student and the off-campus courses for part-time, fully employed adult student.

Employers see their employees in the agricultural fields as adequately trained but see a need for continuing professional development for the agricultural specialist. Although the individual professional is considered by the employers as primarily responsible for his continuing professional development, more than 40% of the employers rank the employers' responsibility as second to the individual's responsibility. The high proportion of employers representing educational institutions is reflected in the answers to questions about policy on subsidy to the employee for continuing professional improvement. Less than 10% report subsidy in the form of tuition payment. More common is subsidy in the form of time-off or credit towards promotion or a combination of the two forms.

It would seem that although enrollments were modest and not representative of the potential student audience in the fields of agri-business during the first year of this program, there are enough positive elements to justify the continuation of the Graduate Professional Improvement program.

The presentation in the following pages consists of illustration and discussion of the responses to the evaluation instruments shown in Appendix "B".

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THE FINDINGS

Part One: The Pre-Course Student Inventory

The questionnaire referred to as the "Student Inventory" and used for the pre-course survey of students is the same one used in a survey of all Evening and Special Class Students during the 1964-1966 biennium, and the responses of the Graduate Professional Improvement participants will be included in the report on the total Evening and Special Class student body for the 1965-1966 year.

Some of the characteristics of the Graduate Professional Improvement students as a sub-group, however, are relevant to this report.

The Graduate Professional Improvement student is older than the typical Evening Class Student. More than 70% of the registrants are over 30 years of age, whereas in the total Evening and Special Class student population the relationship is reversed in that 70% of the registrants are 30 years of age or younger.

Approximately 85% of the registrants in the Graduate Professional Improvement program work full time, and 80% are professional with more than half of these professionals identified as teachers. The proportion of professionals in the entire Evening and Special Class population is 25%.

The educational background of the Graduate Professional Improvement student is high and consistent with the high proportion of professionals. More than 76% hold a bachelor's degree or have completed some work towards the master's degree. An additional 10% hold the master's degree or have completed some work beyond this level. Two students, 0.40%, hold the Ph.D.. The educational background of the Evening and Special Class student, Fall, 1965, shows 22.72% hold a bachelor's degree or have completed some work towards the master's degree. An additional 3.93% hold the master's degree

or have completed some work beyond this level. Slightly more than one-half percent, 0.54%, hold the Ph.D..

Almost 70% of the respondents have had prior University of Minnesota educational experiences either in day classes, or in extension activities (including Agricultural Extension and General Extension). Approximately as high a proportion indicate attendance at other Minnesota and or out-of-state colleges.

Included in this summary of student characteristics are responses of students in each level of courses which made up the enrollment in the program, although a larger proportion of the registrants in credit courses are represented. A small number of students registered in both credit and short credit courses.

Since there was a certain amount of overlap with the student inventory built into the end-of-the-course student evaluation questionnaire, Part Two will include a more detailed description of the overlapping questions.

Part Two: The End-Of-The-Course Evaluation by Students

The discussion in this part of the report is based on 209 responses from students to the questionnaire (identified as Exhibit 2 in Appendix "B"), prepared in consultation with the Research Committee of the Graduate Professional Improvement Committee. The responses include 11 registrants in short courses. Although these 11 are a very small proportion of all the participants in the short course phase of the program, an analysis of responses as a sub-group affirms the similarity of characteristics to the participants in other phases of the program. Six of the 209 registered in credit courses as well as short courses.

The description of responses in Part Two is grouped under a series of headings which reflect the rationale underlying the student evaluation questionnaire.

Role of Subsidy for Participants:

Registrations in the program during its first year as well as intentions for future registrations seem to be independent of subsidy from employers for the majority of the respondents. Two questions were asked: 1) "What financial assistance did you get from your employer for the current course registration?", and 2) "Does your registration for courses in the future depend on receiving financial assistance?". More than 60% received no subsidy. For those who received some form of subsidy time off was the form of subsidy most commonly received as indicated by 11.48% of the respondents. Some received part tuition, 5.74%; some received full tuition, 4.31%. For more than 87% future participation in professional improvement courses is not dependent on subsidy.

Specifically, the responses to these two questions are shown in Table I and Table II following:

TABLE I

SUBSIDY RECEIVED FROM EMPLOYERS		
Classification	Number of Responses	Percent of Total
Full Tuition	9	4.31
Part Tuition	12	5.74
Time Off	24	11.48
Travel Expense	2	0.96
*Full Tuition and Time Off	1	0.48
*Full Tuition, Time Off and Travel Expense	1	0.48
Part Tuition and Travel Expense	1	0.48
Time Off and Travel Expense	2	0.96
No Assistance	126	60.29
No Answer	31	14.82
TOTALS	209	100.00

*Note: In all instances, registrants in categories such as Full Tuition and Time Off are not reduplicated under Full Tuition.

TABLE II

DEPENDENCY ON SUBSIDY FOR FUTURE REGISTRATIONS		
Classification	Number of Responses	Percent of Total
Yes	17	8.13
No	182	87.08
Uncertain	2	0.96
No Answer	8	3.83
TOTALS	209	100.00

Degree Status and Field of Major:

In answer to a series of questions identifying degree status and major field in which degrees are held, as well as future degree goals and major fields, the findings of a high level of educational background were consistent with the designation of the program as Graduate Professional Improvement in the fields of Agriculture.

79.90% hold bachelor's degrees among the respondents to the end-of-the-course evaluation; more than 11%, in addition to the bachelor's degree hold the master's degree. Two participants hold doctor of philosophy degrees. The major background fields include agriculture, education, agricultural education, home economics and home economics education.

The description of degrees held and major fields of concentration are shown in Table III and Table IV following:

TABLE III

HIGHEST DEGREE HELD		
Classification	Number of Responses	Percent of Total
No Degree	13	6.22
Bachelor Degree, but less than Master	167	79.90
Master's Degree	22	10.52
Master's Degree, but less than Doctorate	2	0.96
Doctorate (Ed.D.)	2	0.96
No Answer	3	1.44
TOTALS	209	100.00

TABLE IV

MAJOR FIELD OF CONCENTRATION		
Classification	Number of Responses	Percent of Total
Education	13	6.22
Agriculture	37	17.70
Agricultural Education	52	24.88
Home Economics Education	75	35.89
*Home Economics	7	3.35
Other	19	9.09
No Answer	6	2.87
TOTALS	209	100.00

*i.e.: Nutrition, etc.

Graduate Status and Major Fields:

More than 46% of the participants indicated an interest in graduate degrees; 38.28% specifically said they were not interested in graduate degrees.

All those who indicated that they have applied for admission to the Graduate School also indicated that they had been admitted. This included 18.66%. The fields identified as those of the graduate degree goals largely duplicate the fields of the undergraduate degrees. These include education, agriculture, agricultural education, and home economics education.

The frequencies and respective proportions describing degree status and major fields, and degree goals and major fields are shown in Tables V, VI, VII, and VIII following. The proportion indicating graduate fields of major include those holding graduate degrees as well as the number currently working on degrees.

TABLE V

INTEREST IN GRADUATE DEGREES		
Classification	Number of Responses	Percent of Total
Yes	97	46.41
No	80	38.28
Uncertain	24	11.48
No Answer	8	3.83
TOTALS	209	100.00

TABLE VI

APPLICATION FOR ADMISSION TO GRADUATE SCHOOL		
Classification	Number of Responses	Percent of Total
Yes	39	18.66
No	161	77.03
No Answer	9	4.31
TOTALS	209	100.00

TABLE VII

ADMITTED TO THE GRADUATE SCHOOL		
Classification	Number of Responses	Percent of Total
Yes	39	18.66
No	141	67.48
No Answer	29	13.88
TOTALS	209	100.00

TABLE VIII

FIELD OF CONCENTRATION OF GRADUATE DEGREE WORK		
Classification	Number of Responses	Percent of Total
Education	10	4.78
Agriculture	9	4.31
Agricultural Education	22	10.53
Home Economics Education	8	3.83
Other Areas	8	3.83
No Answer	152	72.72
TOTALS	209	100.00

Importance of Credit Availability:

Almost 50% of the registrations were for degree credit. Certificate credit was the goal of 17.75%. Slightly more than twenty-two percent, 22.01%, of the students were not registered for credit.

Credit, however, was not a necessary condition for future registrations. In response to specific questions, 63.65% indicated they would register for courses relevant to professional educational needs even if they carried no degree credit. Less than 25% answered that they would not register for non-degree credit courses. Nine percent, 9.09%, indicated they were uncertain. In affirmation of the willingness to register for non-degree credit courses, 66.99% said they would register for certificate credit courses, and 15.31% said they would not. Almost 13% said they were uncertain.

The same proportion, 1.91%, in response to each of these questions, indicated they would register for non-credit courses but preferred credit.

The responses to the three questions about credit are as follows in Tables IX, X, and XI.

TABLE IX

CURRENT CREDIT REGISTRATION		
Classification	Number of Responses	Percent of Total
Degree Credit	103	49.28
Certificate Credit	58	27.75
No Credit	46	22.01
No Answer	2	0.96
TOTALS	209	100.00

TABLE X

FUTURE REGISTRATION IN "NON-DEGREE CREDIT" COURSES WHICH ARE RELEVANT TO EDUCATIONAL NEEDS		
Classification	Number of Responses	Percent of Total
Yes	133	63.65
No	49	23.44
Uncertain	19	9.09
Yes, but prefer credit	4	1.91
No Answer	4	1.91
TOTALS	209	100.00

TABLE XI

FUTURE REGISTRATION IN "CERTIFICATE CREDIT ONLY" COURSES WHICH ARE RELEVANT TO EDUCATIONAL NEEDS		
Classification	Number of Responses	Percent of Total
Yes	140	66.99
No	32	15.31
Uncertain	27	12.92
Yes, but prefer credit	4	1.91
No Answer	6	2.87
TOTAL	209	100.00

Time of Year and Time of Day Preferred:

The courses in this program were offered in each of the quarters during the academic year. Responsibilities for agricultural workers in some fields vary with the seasons. The questions asked to assess time of year and time of day preferences were the following: 1) "Which time period do you prefer?", and 2) "Which time of day do you prefer?".

It does not appear that any one time of the year is clearly preferred over the others. The largest proportion, 30.62%, express no preference. The Fall is generally preferred over other times by 23.92%, and in combination with other times of the year by 18.18%. Winter is indicated as the preference by 15.30%, and in combination with other periods by 9.58%.

The evening is the prime time of the day for courses as indicated by 81.82% of the respondents.

The frequencies and proportions of the responses on time of year and time of day preferences are shown in Tables XII and XIII following.

TABLE XII

TIME PERIOD OF THE YEAR PREFERRED		
Classification	Number of Responses	Percent of Total
Fall	50	23.92
Winter	32	15.30
Spring	7	3.35
Summer	8	3.83
No Preference	64	30.62
Fall and Winter	13	6.22
Fall and Spring	9	4.31
Fall and Summer	10	4.78
Fall, Winter and Spring	1	0.48
Fall, Spring and Summer	5	2.39
Fall, Winter and Summer	1	0.48
Winter and Spring	3	1.44
Winter and Summer	2	0.96
Spring and Summer	2	0.96
No Answer	2	0.96
TOTALS	209	100.00

TABLE XIII

TIME OF DAY PREFERRED		
Classification	Number of Responses	Percent of Total
Morning	8	3.83
Afternoon	23	11.00
Evening	171	81.82
No Answer	7	3.35
TOTALS	209	100.00

Travel Distance Factors:

The Graduate Professional Improvement program was planned as an off-campus program with courses scheduled in a variety of communities throughout the state making travel necessary for the students.

The distances traveled to attend class once a week as well as the distances respondents indicated a willingness to travel in the future affirm the market

for continuing education. Although the distance traveled one way by the largest proportion is zero to ten miles by 22.49%, this proportion is almost matched by 22.01% who travel 31 to 50 miles. Approximately 15% travel 51 to 75 miles, and almost 12% travel over 76 miles. Car pools were formed, and reports emphasize the fruitful discussions this made possible.

The willingness to make commitments to travel in the future affirms the fact that the distance factor is not prohibitive for off-campus courses for wide enough areas to draw sufficient numbers of students. In response to the question asking what the maximum number of miles the student would travel, the parallel to the actual miles traveled is indicated. More than 30% indicated a willingness to travel "up to 50 miles"; approximately 25% "up to 75 miles". Some hardy respondents, 11.96%, said "over 76 miles". The frequencies and proportions of the responses on travel distance factors are shown in Tables XIV and XV following:

TABLE XIV

NUMBER OF MILES TRAVELED TO COURSE *		
Classification	Number of Responses	Percent of Total
0 to 10 miles	47	22.49
11 to 20 miles	25	11.96
21 to 30 miles	29	13.88
31 to 50 miles	46	22.01
51 to 75 miles	31	14.83
Over 76 miles	24	11.48
No Answer	7	3.35
TOTAL	209	100.00

* One Way

TABLE XV

MAXIMUM NUMBER OF MILES WILLING TO TRAVEL FOR COURSE*		
Classification	Number of Responses	Percent of Total
Up to 10 miles	10	4.78
Up to 20 miles	13	6.22
Up to 30 miles	25	11.96
Up to 50 miles	64	30.63
Up to 75 miles	51	24.40
Over 76 miles	25	11.96
Uncertain	15	7.18
No Answer	6	2.87
TOTALS	209	100.00

* One Way

The Open-ended Questions:

Three open-ended questions gave the participants an opportunity to make comments about their expectations of the program, the extent to which their expectations were fulfilled and the form of most preferred professional improvement opportunities. By inspection of individual questionnaire returns, it was possible to order the responses into the categories used in the following summary. This was done on a post hoc basis.

The first of the open-ended questions was: "Summarize what your expectations of the course were when you registered, particularly how it would relate to your professional development.".

Although almost half of the students were registered for graduate credit, it is interesting to note that the expectations most frequently described were: "practical -- immediate relevance to job" by 43.5% and "up-dated on current research" by 27.27%. The proportions giving working toward degrees as responses to this question were 2.39% as "work toward graduate degree", and 2.87% as "work toward bachelor degree". Detailed specific references to course

content were categorized under the heading "expectations based on course title and description", and included 17.22% of the responses. Other responses included "expectations not met" by 2.87%, and "meet incentive plan requirements" by 1.44%. The responses, respective frequencies and proportions are shown in Table XVI below.

TABLE XVI

REGISTRANTS' SUMMARY OF COURSE EXPECTATIONS

Classification	Number of Responses	Percent of Total
Practical -- immediate relevance to job	91	43.54
Up-dated on current research	57	27.28
Work toward Bachelor Degree	6	2.87
Work toward Graduate Degree	5	2.39
Academic -- something new in field different from own	1	0.48
Expectations based on course title and description	36	17.22
Meet incentive plan requirements	3	1.44
Expectations not met	6	2.87
No Answer	4	1.91
TOTALS	209	100.00

The second open-ended question was: "Considering your expectations summarized in the preceding answer, evaluate your actual experience in the course.". The responses to this question, particularly, constitute the student's evaluation of the program. For the largest group, 33.01%, the answers are summarized by, "assignments useful, materials available, course had job relevance, good instructor.". Approximately another 20% said, "assignments useful, material available, good instructor.". If to the above are added the 10.05% who said "assignments were useful", 1.91%, "materials were available", 4.78%, "course was relevant to my job", 4.78%, "good instructor", the conclusion is that for the majority, the reaction to the courses in this program is a positive one. For the others, the experience was not good for several reasons identified as "assignments were not useful",

"materials were not available", "course was too abstract", "course too difficult", and "not enough time to study with full time job". Less than 1% (0.96%) said "instructor was not adequate". The details of the responses to the second open-ended question are shown in Table XVII below.

TABLE XVII

ACTUAL EXPERIENCE FROM COURSE		
Classification	Number of Responses	Percent of Total
Assignments were useful	21	10.05
Materials were available	4	1.91
Course was relevant to my job	10	4.78
Good instructor	10	4.78
Assignments useful, materials available, Good instructor	41	19.63
Assignments useful, materials available, Course had job relevance, Good instructor	69	33.01
Assignments useful, materials not available, Good instructor	12	5.74
Materials available - too difficult	6	2.87
Assignments were not useful	1	0.48
Materials were not available	3	1.44
Course too abstract	10	4.78
Course too difficult, not enough time to study with a full time job	5	2.39
Instructor was not adequate	2	0.96
Course relevant to job but too difficult	7	3.35
Materials were not available, too abstract and too difficult	2	0.96
No Answer	6	2.87
TOTALS	209	100.00

The third open-ended question was: "What method for professional improvement do you prefer?". The majority, 54.55%, indicated the preference for "off-campus graduate level courses like one just completed". A substantial group, 22.49%, expressed a preference for "short, intensive, non-credit courses". Other responses to this question were somewhat ambiguous as shown in Table XVIII on the following page.

TABLE XVIII

METHODS FOR PROFESSIONAL IMPROVEMENT PREFERRED		
Classification	Number of Responses	Percent of Total
Off-campus Graduate level courses (like one just completed)	114	54.55
Short, intensive, non-credit courses	47	22.48
Field Work Practice	1	0.48
Summer Sessions	8	3.83
Release from work for course work	2	0.96
Want to be taught without "teaching self"	3	1.44
Uncertain or other	10	4.78
No Answer	24	11.48
TOTALS	209	100.00

Review of the discussion in this part of the report indicates some variety of experiences and evaluation of the Graduate Professional Improvement program among the students. The variation among students in terms of background, professional position and ability might be explanations for these differences. Nevertheless, it is clear that for most of the students the Graduate Professional Improvement program made possible continued professional development, and for a number among these, the program made possible continued work towards graduate degree goals.

Part Three: The End of Course Evaluation by the Faculty

Although it is recognized that to combine perceptive and objective measures of faculty experiences in a varied program of this kind is complex, an effort was made to obtain faculty evaluation. A suggested guide (See Exhibit 3 in Appendix "B") was distributed to instructors in the Graduate Professional Improvement program at the beginning and again at the end of each quarter with the request for the factuly evaluation. From the guide for instructors, it will be noted that comments were solicited on student attendance, achievement and ability. In addition, as a complement to the

open-ended questions asked in the student end-of-the-course evaluation questionnaire, the faculty was asked to comment on relevance of course to apparent needs of students for professional development; on concurrence or disparity between students expectations and actual experience in course; on concurrence or disparity between the faculty expectations and actual experience in the course; and on on-campus -- off-campus differences if there were any.

The Graduate Professional Improvement program consisted of 12 graduate level credit courses and one undergraduate credit home economics course; 2 certificate credit courses; and 10 short courses. Evaluation responses from the faculty were received for 10 graduate credit courses, 1 certificate credit course, and one short course.

It will be useful in the discussion which follows to note that the Graduate Professional Improvement program courses fall into four broad subject matter areas: 1) Agriculture and Agricultural Education, 2) Home Economics and Home Economics Education, 3) Communication, and 4) Sociology.

Attendance:

On attendance, the reports were excellent for 4 courses; good for 6 courses; and fair for one course. The reported attendance in the short course varied substantially among the three meetings.

Participation:

On participation, the evaluations were excellent for 8 courses, fair for 3 courses. More significant than these frequencies are the comments made by the faculty about participation. Examples of the "excellent" comments are these:

> "Varied backgrounds and intense desire to 'know' apparently combined to make the students contribute.".

The fruitful involvement in learning of a group of adults, highly motivated,

and bringing to the classroom professional experience, is supported by another report which adds that the student participation was considerably greater than in comparable on-campus courses. The faculty member says:

> "Most of the students have experience or knowledge of ..... problems of the area. These problems were brought out and discussed thoroughly in the course.".

As indicated, participation was not rated consistently at a high level in all the courses. The negative ratings were less frequently accompanied by detailed comments. Therefore, the following quotation from one of the less favorable ratings of participation, in a certificate credit course meeting for four consecutive hours one day per week for ten weeks, seems particularly interesting.

> "..... but these were professional people, and they probably were a little hesitant to show their ignorance by asking questions. I thought this was easily overcome by proper instructions where questions and comments were invited rather than continuing to lecture if questions were not forthcoming."

By contrast, the report on participation in the short course was very positive. The instructor reports:

> "The student participation appeared to be excellent and without exception, every speaker was bombarded with questions, that led to some very fine discussion.".

Achievement:

Student achievement, evaluated with particular emphasis on the measure of graduate level performance, also receives varying ratings from the faculty. In five courses work of all students was rated at graduate level. Work at either extreme -- very good and very poor is reported in two courses. In two courses work was not considered of graduate quality.

Relevance of Course for Student Needs:

To some extent there is a parallel between faculty evaluation and students' responses to the open-ended questions in the end-of-the-course evaluation. This was the case in reports from the faculty on the relevance of the course

to the apparent needs of the students. The needs perceived by the faculty are identical with the expectations identified by the students -- that is practical and technical information whether in the fields of plant disease control, weed control, curriculum planning in vocational agriculture education, home economics education, or communication. Generally, the faculty judgment is that the needs of the students were met, and the explanation how these needs were met has important implications for adult learning as shown in the next paragraph.

Concurrence or Disparity Between Students' Expectations and Experiences:

Very closely related to the question of students' needs is that about the concurrence or disparity between students' expectations and actual experiences in the course. The faculty characterized the courses as emphasizing the theoretical, the general principles in the respective fields, and as noted, the students' expectations and perceived needs were for the practical and technical. In spite of this difference between faculty and students to begin with, the general consensus is expressed by faculty and students that needs and expectations were met. This is perhaps best explained by the conclusion reported by some of the faculty that vigorous discussion, pursued by highly motivated students operating within a practically oriented individual frame of reference, made applicable the theory and general principles to the practical needs and expectations of students. Where the students in a class consisted of clearly identified sub-groups with different interests and expectations, the relationship between expectation and experience might vary among the groups. An example of this situation would be the Home Economics Courses in which three distinct groups were identified: supervisory and classroom teachers whose needs and expectations were clearly fulfilled; homemakers preparing to return to the classroom whose needs were not yet clearly focussed and therefore not so clearly and specifically met by the course; and extension agents developing materials for program planning which depend upon testing in the field for final evaluation.

On the other hand, the communications course is organized to utilize the differences among the students. The instructor assesses the interests and needs of students at the first class meeting, and the course work is then based on this assessment. A group of adult students with articulated communications needs comprised a unique and educationally fruitful situation in the judgment of the instructor.

Concurrence or Disparity Between Faculty Expectations and Experience:

The faculties' report on the concurrence or disparity between its expectations and actual experience in the course parallel the evaluations reported above. The responses range from "exceeded expectations", to "dissatisfaction with students' performance". The positive evaluations of the experience included comments on the fact that these off-campus students were more verbal and related class work to immediate working needs. One faculty member added:

> "I was 'stretched' to new concepts and forced to critically re-examine old ones -- a most stimulating experience.".

In two courses, the faculty expressed disappointment and dissatisfaction. The evaluations were positive in nine courses.

Comparison of On-Campus with Off-Campus Courses:

The comparison of on-campus with the off-campus experience is generally limited to those courses offered in both settings. One faculty member, however, anticipates probable differences, since he had not taught the course on campus.

The most frequently noted difference is the lack of library facilities, and a variety of measures were taken to compensate for this lack. Several instructors brought library materials to the class meetings. Another reported bringing materials from his personal library. In some cases, fewer resource materials were assigned in the off-campus course.

Another lack in the off-campus courses was that of the laboratory available on-campus. In the Home Economics courses and the Mechanical Agriculture courses the high school cooking and shop rooms provided the laboratory needs. Access to the field in season was not available, a need filled by on-campus greenhouses.

The problem of finding time for individual student conferences in off-campus classes is noted by one faculty member. Using hours after class meeting when class meets during the evening adds a heavy additional obligation to the faculty responsibility.

Differences in off-campus -- on-campus achievement are tied to the problem of study time for the student with a full-time job where achievement is rated as inferior in the off-campus course. Where achievement was rated as high and of graduate calibre, credit is given to the high verbal skill, high motivation, and advantage of professional experience brought into the classroom as an aid to appreciating relevance of material.

Some faculty members report that the adult student in off-campus classes tends to be of very high ability or very low. There seems to be a lack of the middle-ability student in contrast to the on-campus population.

As part of the evaluation, the faculty was asked to identify essential material which might be used for evaluation in an ex post facto design testing information on retention as well as relevance to professional vocational needs. This request was made with great diffidence, since testing retention over a period of time of meaningful materials is as complex a problem as knowing the dimensions of retention is important. At least two faculty members provided some materials in response to this request. As the Graduate Professional Improvement program develops, it is hoped that the question of comparison of learning and retention in the context of on-campus -- off-campus courses can be pursued.

It would seem that using a common guideline for faculty evaluation in a program made up of varied courses yields some comparable responses among

a faculty group. In addition, combining students' responses on evaluation with the faculty responses on evaluation of common course experience produces relevant and fruitful information.

Part Four: The Employers of the Agricultural Professional

Agriculture and agri-business are important elements of the economy in the state of Minnesota. Limiting the count to those units which employ eight or more agricultural professionals, there are more than 1,500 employers which fall into this classification in the state. A Graduate Professional Improvement program for agricultural professionals should have some consequence for the employers of those professions, and therefore the evaluation of the Graduate Professional Improvement program included a survey of the employers of the participating students. The employers covered, however, were not fairly representative of agri-business and agricultural industries because of the high number of teachers in the program. In addition, a number of the students were agricultural agents, employees of Cooperative Extension of the University of Minnesota and consequently the potential number of employers for the survey was reduced.

The questionnaire (See Exhibit 4 in Appendix "A".) used for this third phase of the program evaluation, was written for this purpose. The questionnaire was written to elicit information about the employers' perceived needs for an Agricultural Graduate Professional Improvement program, to assess judgment about the responsibility for professional improvement; to assess the willingness of industry to support such a program financially and otherwise; and to give the employers an opportunity to make comments on this subject.

This portion of the evaluation was limited to the employers of the students registered in the Graduate Professional Improvement program during the 1965-1966 academic year in degree and certificate courses, names being taken from the student registration forms. This list included 113 employers. Responses were received from 83 including 74 educational institutions, 7

business and industry, and 2 agricultural.

The preponderance of educational institutions reflects the large number of home economics and shop teachers participating in the program. Where the University of Minnesota, Cooperative Extension, was the employer, no response was solicited. A number of the school superintendents returned unanswered questionnaires with the comment that the referred to employee, home economics teacher, was not an agricultural professional.

Size of Institution:

Since such a large number of employers were district superintendents, employing only one or at the most two agricultural professionals, more than half, 54.22%, of the employers fall into the category of employing one; 22.89% employ two. Only three, or 3.61%, employed eight or more agricultural professionals. It is clear, therefore from the summary of the responses to the question: "How many agricultural professionals do you employ?", that this survey of employers does not cover a representative or even a typical sampling of the field. The details on this question are shown in Table XIX below.

TABLE XIX

SIZE OF INSTITUTION

Classification	Number of Responses	Percent of Total
One	45	54.22
Two	19	22.89
Three	5	6.02
Four	2	2.41
Five	1	1.20
Six	3	3.61
Eight or more	3	3.61
No Answer	5	6.02
TOTAL	83	100.00

Employees are Adequate For Majority:

Two questions were asked to assess employers' judgment of adequacy of training of the agricultural professional. In answer to the question: "Are the professionals you employ adequately trained at the time of employment?", 79.52% of the employers say "yes"; 15.66% say "no", and 4.82% do not answer.

Twenty percent of the employers identify the areas which they see as deficient in answer to the question: "If your answer is 'no' to the preceding question, what areas of training do you see as deficient?". "Professional development" is the answer given most frequently, either alone, or in combination with administration and communication. The frequencies and proportions to these two questions are as follows:

TABLE XX

PROFESSIONAL ADEQUATELY TRAINED		
Classification	Number of Responses	Percent of Total
Yes	66	79.52
No	13	15.66
No Answer	4	4.82
TOTALS	83	100.00

TABLE XXI

DEFICIENT AREAS OF TRAINING		
Classification	Number of Responses	Percent of Total
Professional Development	6	7.23
Fields of Agriculture	2	2.41
Communication	3	3.61
Professional Development and Administration	1	1.20
Professional Development and Communication	1	1.20
Professional Development, Administration and Communication	2	2.41
Fields of Agriculture, Professional Development, Administration and Communication	2	2.41
No Answer	66	79.52
TOTALS	83	100.00

Employers Perception of Need for and Identification of Area of Training:

Although the overwhelming majority of employers consider the agricultural professional adequately trained at the time of employment, 95.18% say "yes" to the question: "Do you think there is a need for continuing professional training for the agricultural specialist?". The areas named in which continuing professional development is needed are agricultural, 34.97%; and agriculture in combination with education, 9.64%; in combination with business and industrial, 9.64%. It would seem from these answers that employers perceive professional development in agricultural fields as the most important need. Emphasis on education (curriculum and instruction) -- 19.28%, reflects the large number of school superintendents. Approximately 20% did not answer this question. The response to the two questions on need for professional improvement and identification of areas are shown in Tables XXII and XXIII.

TABLE XXII

NEED FOR PROFESSIONAL TRAINING		
Classification	Number of Responses	Percent of Total
Yes	79	95.18
No	0	0.00
No Answer	4	4.82
TOTALS	83	100.00

TABLE XXIII

AREA OF ADDITIONAL PROFESSIONAL TRAINING NEED		
Classification	Number of Responses	Percent of Total
Education (Curriculum and Instruction)	16	19.28
Business and Industrial	6	7.23
Agriculture	29	34.94
Education and Agricultural	8	9.64
Business, Industrial and Agricultural	8	9.64
No Answer	16	19.28
TOTAL	83	100.00

Who is Responsible for Professional Improvement?

In some fields continuing professional education has a long, well-established tradition. The assumed responsibility is that of the individual in the medical and health fields; more often that of the employer in the science and technology fields. Education has a historical tradition of professional improvement with the responsibility carried by the individual. In the student end-of-the-course evaluation, it was clear that the employer support in the form of subsidy was the experience of the minority, as was the expectation of the employer subsidy in the future. The employers' response to this question clearly affirms that among this group of employers 86.76% think that the primary responsibility for professional improvement rests on the individual employee. Only 1.20% of the employers think that the primary responsibility for professional improvement is that of the employer. Nevertheless, a substantial proportion, 42.17%, rank the employers' responsibility as second; 21.67% rank it as third; and in decreasing proportions as the ranking order decreases.

From the responses of the students in the preceding section less than 5% received a subsidy in the form of full tuition, almost 6% received part tuition; The responses of the employers endorsing responsibility for professional improvement might be interpreted as favorable for the future development of these programs.

Although the ranking for the University as primarily responsible for professional development is endorsed by 7.23%, a substantial number of employers rank the University responsibility as second, 32.53%, and as third, 26.51%. Professional Organizations are also seen as carrying some responsibility for professional improvement of their members by the employers, although the responsibility is not seen as that of the professional organization as a first or second choice, but 34.94% indicate this as the third choice and 28.92% as the fourth choice.

Government agencies are ranked fifth by the largest proportion, 56.63%, in order of responsibility for professional development of agricultural professionals.

A few organizations are specified in the "other" choice as carrying some responsibility for professional improvement of agricultural professionals. These are Area Vocational Schools, Farm Groups, Certification Agencies, and County Agents. The frequencies and respective proportions of the responses to this question are as follows:

TABLE XXIV

PROFESSIONAL IMPROVEMENT AS INDIVIDUALS' RESPONSIBILITY		
Classification	Number of Responses	Percent of Total
First Choice	72	86.76
Second Choice	5	6.02
Third Choice	1	1.20
No Answer	5	6.02
TOTALS	83	100.00

TABLE XXV

PROFESSIONAL IMPROVEMENT AS EMPLOYERS' RESPONSIBILITY		
Classification	Number of Responses	Percent of Total
First Choice	1	1.20
Second Choice	35	42.17
Third Choice	18	21.69
Fourth Choice	13	15.66
Fifth Choice	6	7.23
Sixth Choice	2	2.41
No Answer	8	9.64
TOTALS	83	100.00

TABLE XXVI

PROFESSIONAL IMPROVEMENT AS UNIVERSITY RESPONSIBILITY		
Classification	Number of Responses	Percent of Total
First Choice	6	7.23
Second Choice	27	32.53
Third Choice	22	26.51
Fourth Choice	18	21.69
Fifth Choice	3	3.61
No Answer	7	8.43
TOTALS	83	100.00

TABLE XXVII

PROFESSIONAL IMPROVEMENT AS RESPONSIBILITY OF PROFESSIONAL ORGANIZATION		
Classification	Number of Responses	Percent of Total
First Choice	1	1.20
Second Choice	8	9.64
Third Choice	29	34.94
Fourth Choice	24	28.92
Fifth Choice	10	12.05
Sixth Choice	3	3.61
No Answer	8	9.64
TOTALS	83	100.00

TABLE XXVIII

PROFESSIONAL IMPROVEMENT AS RESPONSIBILITY OF GOVERNMENT AGENCIES		
Classification	Number of Responses	Percent of Total
First Choice	0	0.00
Second Choice	1	1.20
Third Choice	5	6.02
Fourth Choice	14	16.87
Fifth Choice	47	56.63
Sixth Choice	2	2.41
No Answer	14	16.87
TOTALS	83	100.00

TABLE XXIX

PROFESSIONAL IMPROVEMENT AS RESPONSIBILITY OF OTHER AGENCIES		
Classification	Number of Responses	Percent of Total
First Choice	0	0.00
Second Choice	1	1.20
Third Choice	1	1.20
Fourth Choice	1	1.20
Sixth Choice	12	14.46
No Answer	68	81.93
TOTALS	83	100.00

Institutional In-Service Training:

Relatively few of the companies or institutions covered by the employer survey have in-service training for agricultural professionals. The response to this question was 15.66% saying programs exist; 79.82% saying "no"; and 4.82% "no answer".

TABLE XXX

INSTITUTIONAL IN-SERVICE TRAINING		
Classification	Number of Responses	Percent of Total
Yes	13	15.66
No	66	79.82
No Answer	4	4.82
TOTALS	83	100.00

Employer's Attitudes on Subsidy of Professional Improvement:

Including a wide possibility of employer support of employees' professional improvement, a substantial majority, 61.45% of the employers indicate that their institutions have a policy of supporting out-of-plant continuing education. Approximately 35% say "no" to the policy on support of the program. More than

3.5% did not answer this question. The kinds of employer support listed are varied. This includes time off, tuition support, credit to promotions and a combination of these,

Approximately consistent with the proportions indicating "no company subsidy" and "no answer" on subsidy questions, 36.14% give "no answer" to the question on kinds of subsidy. The details of the employers attitudes on subsidy of employees' professional improvement are shown in Tables XXXI and XXXII below.

TABLE XXXI

DISTRIBUTION OF COMPANIES SUPPORTING OUT-PLANT TRAINING		
Classification	Number of Responses	Percent of Total
Yes	51	61.45
No	29	34.94
No Answer	3	3.61
TOTALS	83	100.00

TABLE XXXII

TYPES OF SUBSIDY FOR OUT-PLANT TRAINING		
Classification	Number of Responses	Percent of Total
Time Off	8	9.64
Tuition Support (Financial)	7	8.43
Credit to promotions	8	9.64
Other	8	9.64
Time Off and Tuition support	5	6.02
Time Off and Credit to promotions	9	10.84
Tuition Support and Credit to promotions	3	3.61
Time Off, Tuition, Promotion credit	5	6.02
No Answer	30	36.14
TOTALS	83	100.00

Employers Preference for Credit Status of Course:

Employers were asked to rank from one to three the preference for degree credit, certificate credit or non-credit courses. It is clear from the ranking shown that most employers prefer degree credit, certificate credit and non-credit courses in that order.

TABLE XXXIII

DISTRIBUTION OF EMPLOYERS' PREFERENCE FOR DEGREE CREDIT COURSES		
Classification	Number of Responses	Percent of Total
First Choice	62	74.70
Second Choice	10	12.05
Third Choice	3	3.61
No Answer	8	9.64
TOTALS	83	100.00

TABLE XXXIV

DISTRIBUTION OF EMPLOYERS' PREFERENCE FOR CERTIFICATE CREDIT COURSES		
Classification	Number of Responses	Percent of Total
First Choice	11	13.25
Second Choice	58	69.89
Third Choice	3	3.61
No Answer	11	13.25
TOTALS	83	100.00

TABLE XXXV

DISTRIBUTION OF EMPLOYERS' PREFERENCE FOR NON-CREDIT COURSES		
Classification	Number of Responses	Percent of Total
First Choice	2	2.41
Second Choice	5	6.02
Third Choice	63	75.90
No Answer	13	15.67
TOTALS	83	100.00

Although the employers covered in the survey were not representative of the agri-business employers in the state, it would seem from the foregoing that employers are interested in and support professional development opportunities for their employees to the extent their institutional policies permit.

Conclusion:

To attempt a final decision about the Graduate Professional Improvement program on the basis of the survey summarized in these pages would seem premature. Until a broader representation of employees and employers from the agri-business field is reached, a program of this kind cannot have been thoroughly tested. Whether the selective and relatively limited enrollment is indicative of inadequate communication or lack of demand was not a question raised within this evaluation.

However, on the basis of responses received (and described in this report) from students, their employers, and the faculty, it may be reported that the program successfully filled a need for the participants.

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APPENDICES

APPENDIX A

LIST OF COURSES AND ENROLLMENTS

Fall Quarter 1965

Home Economics 160A	Curriculum in Home Economics, 3 credits	27
Rhetoric 169	Communications Problems and Processes, 3 credits	9
Soils Science 119	Intermediate Soils, 3 credits	13
Mechanical Agriculture 131	Advance Methods for Teaching Agricultural Mechanics, 3 credits	14
	Short Courses	58

Winter Quarter 1966

Plant Pathology 119	Principles of Plant Disease Control, 3 credits	11
Agronomy 135f	Weed Control, 3 credits	12
Home Economics 160A	Curriculum in Home Economics, 3 credits	4
Home Economics 53	Advanced Clothing, 3 credits	13
Sociology 162	Rural Social Institutions, 3 credits	19
Agricultural Economics 183	Farm Planning	12
	Livestock Management, 3 certificate credits	12
	Short Courses	287

Spring Quarter 1966

Mechanized Agriculture 115	Drainage and Irrigation, 3 credits	15
Home Economics 160A	Curriculum in Home Economics, 3 credits	54
	Short Courses	36

Card

Department of Evening and Special Classes—General Extension Division

STUDENT INFORMATION CARD

The information requested on this card is used by the General Extension Division in statistical studies designed to provide better service to our students.

Please complete this questionnaire even if you have filled out a similar form at a previous registration. ANSWER EVERY QUESTION CHECKING AS MANY ITEMS IN EACH QUESTION AS APPLY TO YOU.

Name (print)_____
first middle last

Street Address_____

City_____ State_____ Zone or Zip Code_____

1. I am now registering for classes to be held at Minneapolis Campus___; St. Paul Extension Center___; Robbinsdale___; St. Paul Campus___; Duluth___; Morris___; Rochester___; Off-campus class (name city)_____

2. I was registered for Extension classes during Fall, 1964___; Winter and/or Spring, 1965___; Never before___; Other (specify years)_____

3. I have attended the University of Minnesota previously as a student in Day classes___; Evening classes___; Correspondence courses___; Television College___; Never attended before___

4. Education completed (check highest level completed): Less than high school___; high school___; Years in college: 1___; 2___; 3 or more___; Bachelor's degree___; Beyond Bachelor's degree but less than Master's degree___; Master's degree___; Beyond Master's degree but less than Doctor's___; Doctor's degree___

5. Education other than college or high school: Trade School___; Business School___; Nursing or Medical Assistant (no college degree)___; Does not apply to me___; Other (specify)_____

6. If you finished high school, but did not go on to full-time college or university within two years, please indicate why: Financial reasons___; Job-connected___; Poor grades___; Marriage or family___; Military___; Did not expect to go to college___; Does not apply to me___; Other (specify)_____

7. If you ever attended college full-time and had to drop out before completing a degree, why? Financial reasons___; Job-connected___; Poor grades___; Marriage or family___; Military___; Never attended full-time___; Other (specify)_____

8. Give the name (or names) and location of colleges or universities, other than the University of Minnesota, attended:

Name	City	State

Does not apply to me___.

PLEASE FILL OUT BOTH SIDES OF THIS CARD

9. If presently enrolled in University of Minnesota Day classes, indicate college: College of Liberal Arts___; Business___; Institute of Technology___; Education___; General College___; Graduate School___; Does not apply to me___; Other (specify)_____

10. If you are planning to complete a degree in Day school, please specify: Associate in Arts___; Associate in Liberal Arts___; Bachelor's degree (identify field or college)_____; Gradrate degree (identify field and degree)_____; Not seeking a degree in day school___.

11. If you are seeking a degree or certificate through the General Extension Division, please specify: Associate in Liberal Arts___; Bachelor's degree in Liberal Arts___; Business degree___; Liberal Arts certificate___; Interior Design certificate___; Public Administration certificate___; Business or Secretarial certificate___; Engineering certificate___; College of Life Underwriters___; Police certificate___; Assessment and Appraisal certificate___; Industrial Relations certificate___; Not seeking a degree or certificate in Extension___; Other (specify)_____

12. If you are not seeking a degree or certificate, check main reasons for taking courses: In connection with job___; Interested in subject___; Intellectual stimulation from instructor___; Intellectual stimulation from other students___; Enjoyment of being with people taking this kind of course___; Does not apply to me___; Other (specify)_____

13. Number of Extension classes you are now registering for: one___; two___; three___; four___; five___.

14. Number of credits now registering for: No credit___;1-3___; 4-6___; 7-9___; 10-12___; More than 12___.

15. Source of tuition fees: Personal income/savings___; Parents or guardian___; Employer___; Military___; State___; Scholarship___; Loan___; Other (specify)_____

16. Sex: Male___; Female___.

17. Marital status: Single___; Married___; Widowed___; Divorced___.

18. Age: Under 18___; 18-19___; 20-22___; 23-25___; 26-30___; 31-35___; 36-40___; 41-50___; 51 and over___.

19. Work status: Not working or looking for work___; Part-time___; Full-time___; Retired ___.

20. Full-time or primary occupation (check only one): Student___; Skilled technician___; Managerial___; Sales___; Office/clerical___; Professional (specify)_____ Military___; Housewife___; Other (specify)_____

21. Income (if housewife, give income class of husband): Less than $2,000___; $2,000 to $4,999___; $5,000 to $7,999___; $8,000 to $10,999___; More than $11,000___.

PLEASE FILL OUT BOTH SIDES OF THIS CARD

APPENDIX B

Exhibit 2

STUDENT END-OF-COURSE EVALUATION

The professional improvement program is in an experiemental stage. Your evaluation of the program is important so that plans can be made to best fill your needs. Please answer the following questions and feel free to add any comments you wish in the space at the end.

1. Name _____.
2. Address _____.
3. Name of employer _____.
4. Address of employer _____.
5. Title of position _____.
6. What financial assistance did you get from your employer for the current course registration? Full tuition ___; part tuition ___; time off ____; travel expense ____; other (specify)_____.
7. Does your registration for courses in the future depend on receiving financial assistance? Yes ___; No ___.
8. What degree do you hold? _____.
9. What was your major field? _____.
10. Are you interested in a graduate degree? Yes ___; No ___.
11. Have you applied for admission to the Graduate School? Yes ___; No ___.
12. Have you been admitted to the Graduate School? Yes ___; No ___.
13. If you are working for a graduate degree, name field of major _____

_____.
14. Which professional improvement course have you just completed?_____

_____.
15. Did you register for: degree credit ____; certificate credit ____; no credit ____.
16. If, in the future, courses relevant to your educational needs but carrying no degree credit are available, would you register for them? Yes ____ No ____.
17. If, in the future, courses relevant to your educational needs but carrying certificate credit only are available, would you register for them? Yes ___; No ___.

18. Which time period do you prefer? Fall ___; Winter ___; Spring ___; Summer ___; No special preference.

19. Which time of day do you prefer? Morning ___; Afternoon ___; Evening ___.

20. How many miles (one way) are you driving for current course registration? _____.

21. What is the maximum number of miles you would drive for a course?_____.

22. Summarize what your expectations of the course were when you registered, particularly how it would relate to your professional development.

_____

_____

_____

_____

_____

_____.

23. Considering your expectations summarized in preceding answer, evaluate your actual experiences in the course. Comment especially on the usefulness of assignments, availability of materials, and relevance of course to your work._____

_____

_____

_____

_____.

24. What method for professional improvement do you prefer?_____

_____

_____

_____

_____

_____.

****

APPENDIX B

Exhibit 3

SCHEDULE FOR INSTRUCTORS
to be used as Guide
for
End-of-Course Evaluation

Participation of the faculty is essential for the evaluation of the Professional Improvement program. The evaluation includes a survey of the "consumers" or employers of the professionals for whom the program is planned and a survey of the participants, including educational background, vocational experience, assessment of expectations and post-course, evaluation of fulfillment of expectations. The third aspect of the evaluation involves the faculty, particularly with regard to judgments comparing the off-campus and on-campus courses, students and environmental situations. To this end, we solicit your assistance in keeping careful records on the following:

Student attendance
Student participation
Student achievement.

In addition, please observe carefully and make notes regarding evidences of:

- Relevance of course to apparent needs of students for professional development,
- Concurrence or disparity between students' expectations and actual experience with regard to the course,
- Concurrence or disparity between your expectations and actual experience with regard to the course,
- Changes in assignments of class procedures between the class taught on-campus and the same class taught off-campus. (If this class is not available on-campus, indicate what differences you think would apply if it were taught on campus.) Be particularly specific about library work, laboratory work, and supplementary assignments as well as the background and apparent ability, motivation and achievement of students.

Finally, please identify essential material that might be used for evaluation in an ex post facto design testing information retention as well as relevance to professional vocational needs.

APPENDIX B

Exhibit 4

For Consumers of the Professional

PROFESSIONAL IMPROVEMENT PROGRAM

EVALUATION

The University of Minnesota is introducing a program of professional improvement courses for professional workers in the field of agriculture. In order to best serve the needs of all the potential participants in the program -- the employer of the professional in this case -- this questionnaire is being sent to you. Your cooperation in responding to it and sending it to _____ at your early convenience will be appreciated.

****

1. Company or institution reporting _____.
2. Name of respondent _____.
3. Title and position of respondent _____.
4. Address of respondent _____.
5. How many agricultural professionals do you employ? Number: _____.
6. Are the professionals you employ adequately trained at the time of employment? Yes ___; No ___.
7. If your answer is "no" to question 6, what areas of training do you see as deficient? _____
8. Do you think there is a need for continuing professional training for the agricultural specialist? Yes ___; No ___.
9. If "yes" to question 8, name the areas for which you see a continuing educational need: _____
10. Rank with numbers from 1 to 6 the order in which you think primary responsibility for professional improvement lies: the individual professional ___; the employer ___; university ___; professional organizations ___; government agencies ___; other (specify) _____
11. Does your company or institution have a program of in-service training for agricultural professionals? Yes ___; No ___.

12. Does your company or institution have a policy of supporting out-plant continuing education activities for employees? Yes ____; No ____.

13. If "yes" to question 12, specify: time off for taking courses _____; tuition support _____; credit towards promotion _____; other (specify) _____.

14. Rank in order of preference from 1 to 3 professional improvement courses which: carry degree credit ____; certificate credit ____; no credit ____.

15. Add whatever comments you wish to make about the question of professional improvement programs: _____