

Self Assessment Report
DEPARTMENT OF AGRICULTURAL EXTENSION



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ARID AGRICULTURE UNIVERSITY
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INTRODUCTION

Arid Agriculture University was established in 1994 which was formerly a college named as Barani Agricultural College. The college started functioning in 1979 in order to teach and train the arid zone area's pupils on account of ameliorating the adverse agricultural conditions. Initially, the course was offered as a supporting course for the students of B. Sc. (Hons.) Agriculture But, in 2003, the dire need of Agric. Extension specialization was felt, so, the department of Agricultural Extension started functioning in full swing from 2003. Since then its growth and progress both in terms of faculty, students and up gradation have been commendable. Consequences of all these possible efforts have produced multi-dimensional Agric. Extension specialists who have been rendering their services for the well being of common man generally and the country particularly.

The program of Agricultural Extension is designed to provide necessary skills in understanding Extension oriented activities in Agriculture. Its curriculum highlights the emerging issues of new and economically important agriculture and livestock in Pakistan. Moreover, the department is committed to quality teaching and research in the area of Agricultural Extension.

With the latest development in the field of Agricultural Extension, the department regularly updates its curriculum. The department provides a variety of study programs such as Communication and Journalism, writing of technical reports and articles, adoption of innovations, cyber extension, evaluation and monitoring, administration, supervision and research etc to foster students' professional skills and clairvoyant.

Now, briefly, this Self Assessment Report (SAR) is based on eight criteria. The first criterion outlines the program mission and objectives. Criterion-2 provides information about the curriculum development. Criterion-3 enlists the laboratories and other relevant information. The fourth criterion is pertinent to the information about students' support and advising. The last four criteria provide information about process control, faculty characteristics and institutional facilities and support provided by the university.

CRITERION 1: PROGRAM MISSION, OBJECTIVES AND OUTCOMES

Criterion-1 Program Mission, Objectives and Outcomes

The self assessment is based on a number of criteria. To meet each criterion several standards must be satisfied. This section describes how the standards of the Criterion 1 are met.

Standard 1-1: The program must have documented measurable objectives that support institution mission statements.

Mission Statement of the Department of Agricultural Extension

The mission of Department of Agricultural Extension is different from other disciplines of agriculture because its research is mostly being done in field. So, our students need more heed regarding practical oriented challenges. In order to cope with the rough and tough field impediments, we are striving to equip them with quality teaching, communication skills and interviewing skills, conduction of quality oriented superior research and extend knowledge for the amelioration of agriculture. These all efforts, surely, provides self-sufficiency in quality food by reducing losses in crop yields due to many factors and reduce the losses by adopting recommended practices and improved varieties. It enables farming community to tackle ups and downs in agriculture in our homeland.

Documented measurable objectives

The Strategic objectives of the department are as under:

1. To train the students regarding Extension oriented skills.
2. To equip Agricultural Extension discipline on modern and innovative lines for teaching and research for the graduate students.
3. To impart basic and applied high quality knowledge and skills in the field of Agricultural Extension applying highly advanced communication, monitoring, and evaluation capabilities.
4. To guide students pertaining to research which is helpful on economic and scientific basis in the current and future scenario.
5. To strengthen the discipline with integration of knowledge and approach of related fields such as economics, social sciences, psychology and mass communication.

Main elements of strategic plan to achieve mission and objectives

Development of a sound teaching system based on the experience and vision gathered from scientific reports, campaigns, world reviews, literature, innovations, proceedings, symposia etc for the award of degrees.

1. Designing and constantly updating the curricula involving core subjects, elective subjects, specialized areas, internship programs and study tours.
2. Setting up of well equipped specialized audio-visual laboratory.
3. Publication of scientific papers, books, manuals etc.

4. Development of linkages with national and international research organizations to foster research.

The assessment of program objectives through different criteria is presented in Table. 1

Table 1. PROGRAM OBJECTIVES ASSESSMENT

S. #	Objective	How Measured	When Measured	Improvement Identified	Improvement made
1	Development and strengthening of Communication skills	On the basis of bestowing solutions of the problems prevailing in the country and arid zone area exclusively.	It is a continuous process as per requirement	More teaching faculty required. In addition, Pedagog and training methods need to be ameliorated	Teaching methods have been revised on modern lines but recruitment of new faculty is in pipeline hitherto
2	To equip the department pertaining to the novel and scientifically sanctioned Agricultural areas for unparalleled teaching and training for learners	Back ground information and status of knowledge of students through entry tests and students feed back	At the time of admission or semester	Some basic courses need to be included in the curriculum	Revision of curriculum as per requirement on international standards
3	To impart basic and the applied knowledge to the graduate students	Back ground information and status of knowledge of students through entry tests and students feedback	At the time of admission or semester	Some basic courses need to be included in the curriculum	Revision of curriculum as per requirement on international standards
4	Guidance to students in research / internship	Assessing interest of students, students feed back	Before start of projects	Students to make presentations and reports	Presentations, seminars, communication skills development
5	Integration of related fields	Through entry tests, interviews research own interest	Subject / courses attachment before start	Related subjects to be recommended for studies	Enhancement of knowledge and vision

Programme Learning Outcomes

All the Agricultural Extension students should be capable of:

1. The students have been trained in the communication skills like presentations, oral discussions, group discussions, role playing etc.
2. The teachers are accustomed to reading sundry relevant materials including Books, Journals, special issues etc and also attending seminars and workshops, and time to time being discussing numerous issues pertaining to Agriculture Extension with the experts to strengthen their knowledge and skills in order to aggrandize their capabilities.
3. The faculty members of this exclusive department are studying extensively various text and grey literature, and most importantly availing the opportunity of Internet to ameliorate their teaching skills. Infact, without field knowledge we can not improve our teaching skills. Therefore by the help of exposure visits (personal or official) faculty members are by and by and day by day improving their teaching skills.
4. The rising stars of the department are burning midnight oil to accomplish the scientific oriented tasks being given by the course teachers for the well being of the peasants particularly and country generally. The repercussions are the fruit of the guidance always given by the torch bearers in the form of teachers.
5. Infact, for the professional mentor one subject is not sufficient to broaden their vision and skills, therefore, in order to enhance their learning, faculty members are used to studying from various angles and many subjects to fit the subject in many spheres of life with the integration of rural economics, Sociology, Psychology exclusively adult (Farmer) and mass communication etc.

Relationship between programme outcomes and objectives are given in table 2.

Standard 1-2: The program must have documented outcomes for graduating students. It must be documented that the outcomes support the program objectives and that graduating students are capable of performing these outcomes.

Table 2 shows that outcomes of the programme are aligned with each objective

Table 2: Programme outcomes and their relationship with objectives

		Objectives				
		1	2	3	4	5
Outcomes	1	+++	+++	++	+	++
	2	++	++	+++	++	++
	3	+++	+++	++	+	++
	4	++	+++	++	++	+
	5	+++	+	++	+++	+++

+ = moderately satisfactory

++ = satisfactory

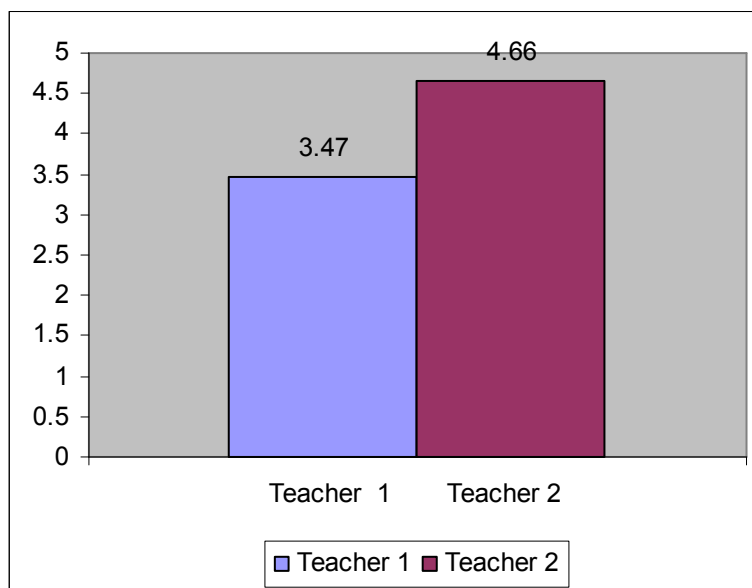
+++ = highly satisfactory

A number of surveys based on the QAA questionnaires were initiated to assess the program outcomes/graduates of the Department.

Program Assessment Results

Teachers' Evaluation

Currently there are two teachers (permanent) in the department and only in one semester one teacher is hired. The results were compiled from the surveys, conducted recently for the first time. The teachers were evaluated by the students at the end of the semester in accordance with Proforma-10. The teachers are represented as 1, 2, instead of mentioning their names. The overall compiled results showed that teacher-2 is on the top scoring 4.66 points out of 5 while teacher 1 is on the bottom securing 3.47 scores.

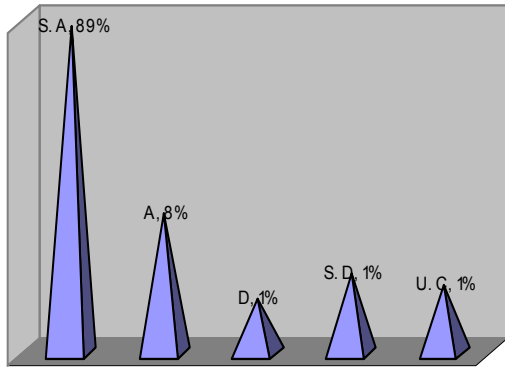


Detail of individual performance of each teacher is obvious from the Pie-charts given below.

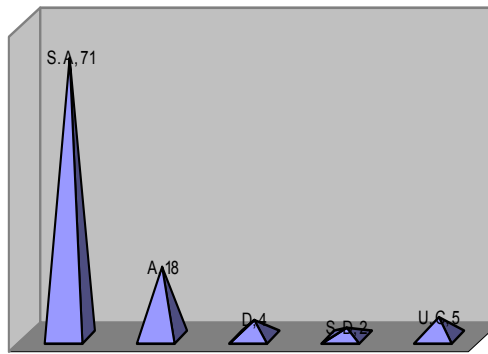
Teacher 2 (AEE 402)

Pie charts show that the students were quite satisfied with the performance of the teacher. However the 68 % students were of the view that the teacher maintained conducive environment for learning. Similarly 96 % students stated that the teacher was fair in the examination. However only 80 percent students depicted that the syllabus clearly stated course objectives.

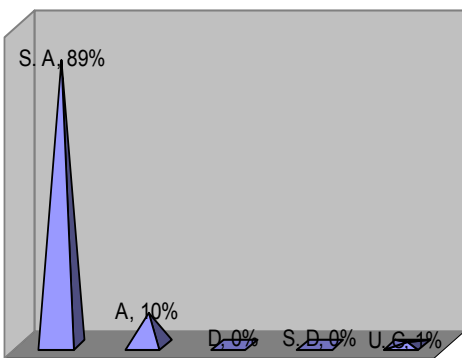
1-The Instructor is prepared for each class



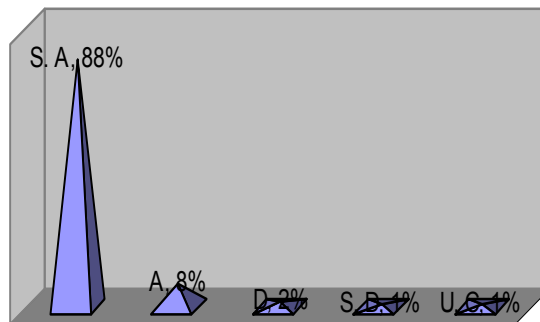
2-The Instructor demonstrates knowledge of the subject



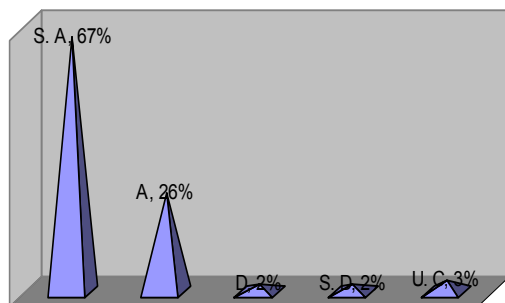
3-The Instructor has completed the whole course



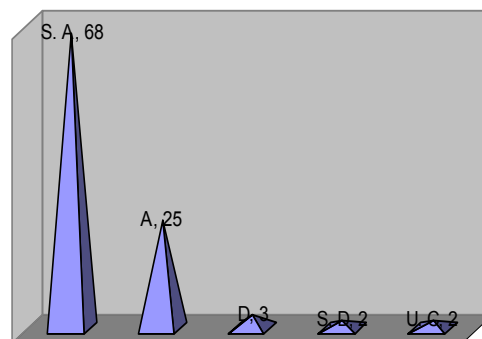
4-The Instructor provides additional material apart from text



5-The Instructor gives citations regarding current situations With reference to Pakistani context

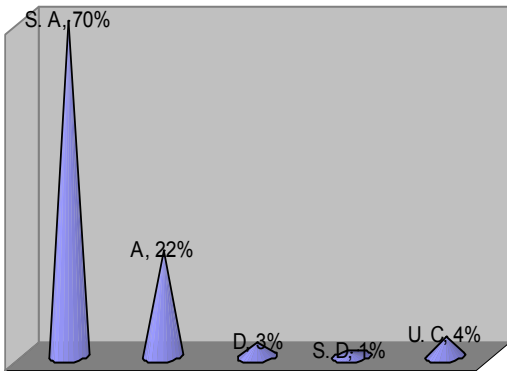


6-The Instructor communicates the subject matter effectively

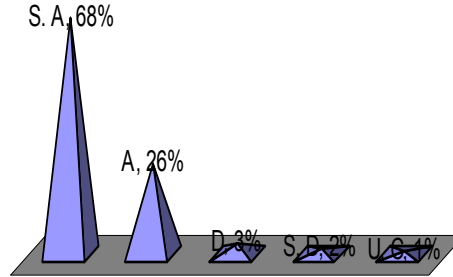


SA= Strongly Agree; A= Agree; UC= Uncertain; D= Disagree; SD=Strongly Disagree

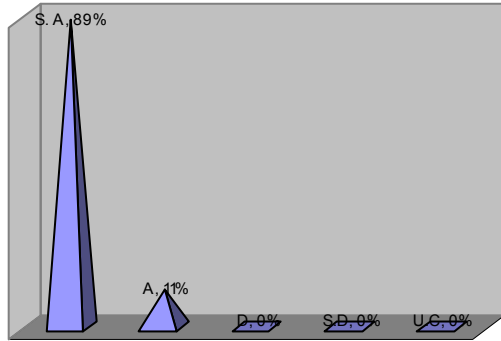
7- Instructor shows respect towards students



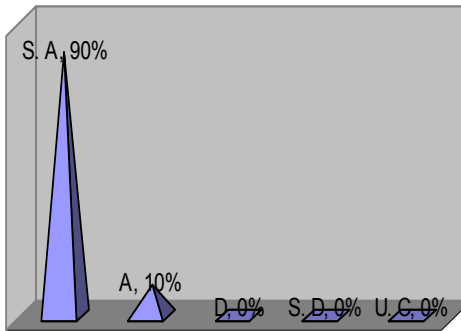
8-Instructor maintains an environment that is conducive to learning



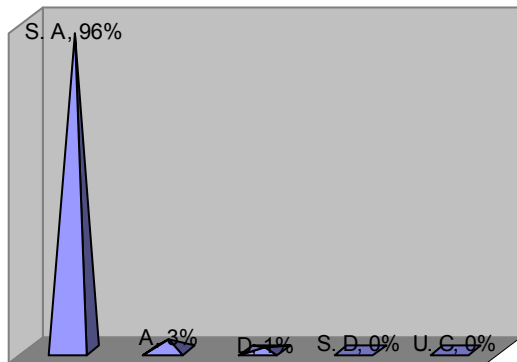
9-Instructor arrives on time



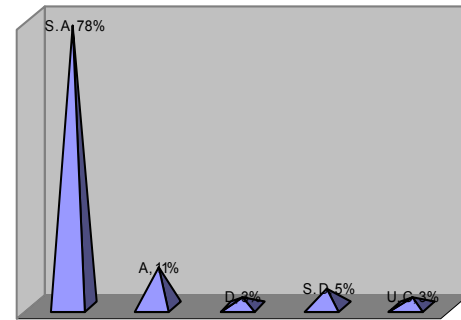
10-Instructor Leaves on time



11-Instructor is fair in examination

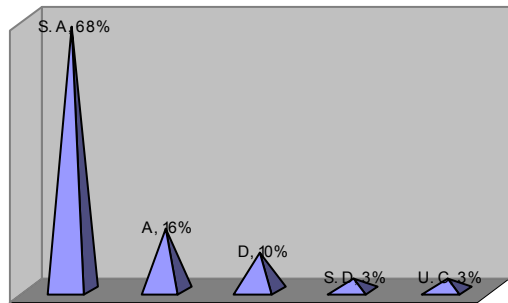


12-Instructor returns the graded scripts

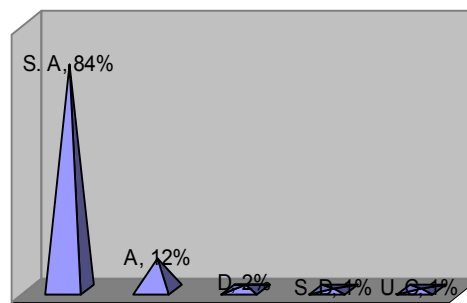


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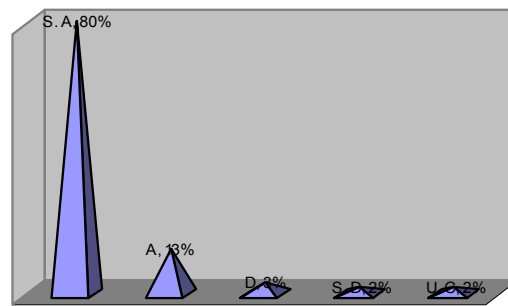
13-Instructor was available during the specified office hours



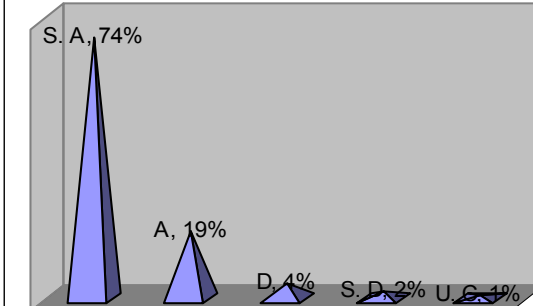
15-Course has increased your knowledge of the subject



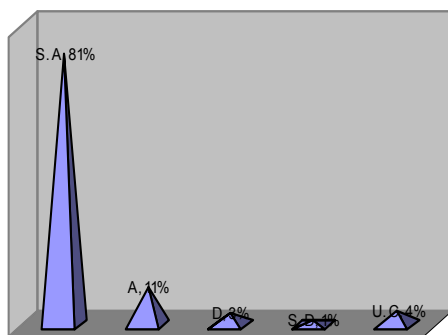
16-Syllabus clearly states course objectives



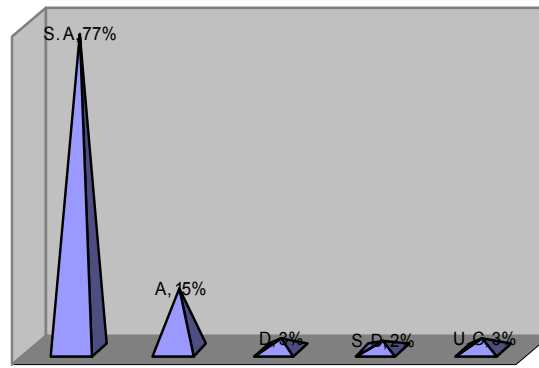
17-Course integrates theoretical course concepts with real world applications



18-Assignment and exams covered the materials presented in the course



19-The course material is modern and updated



SA= Strongly Agree; A= Agree; UC= Uncertain; D= Disagree; S. D=Strongly Disagree

General Comments of the Students about this teacher.

Weaknesses:

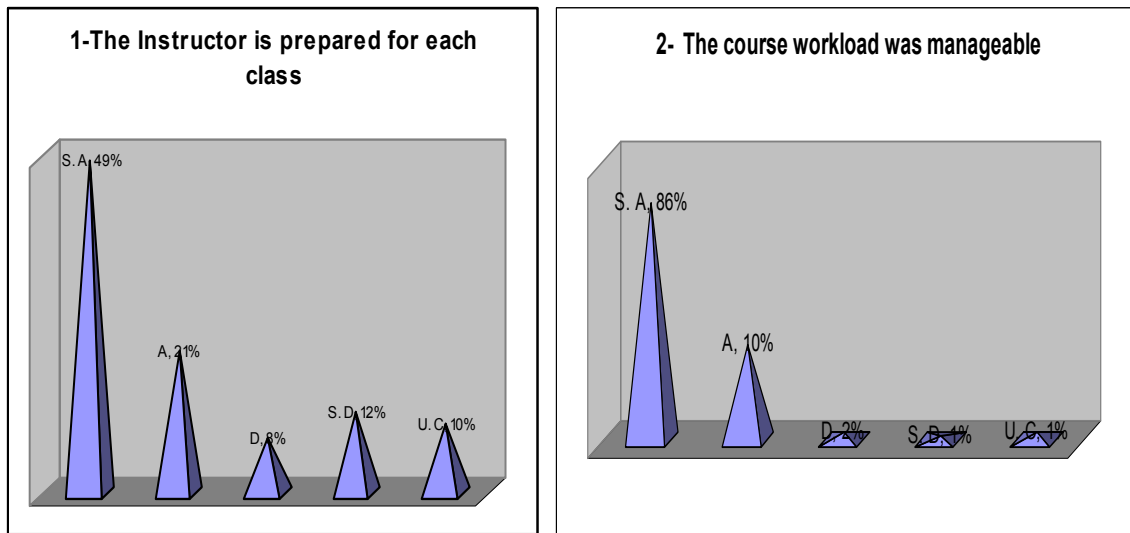
- Teacher was miser in terms of numbers.
- Teacher should have arranged field visits and study tours to learn more practically.
- Teacher should provide notes on time.

Strengths:

- Teacher was friendly in behavior.
- Teacher encouraged student's participation.
- Teacher included modern concepts in his lectures.
- Teacher had good grip on his subject.
- Teacher arrived in time always.

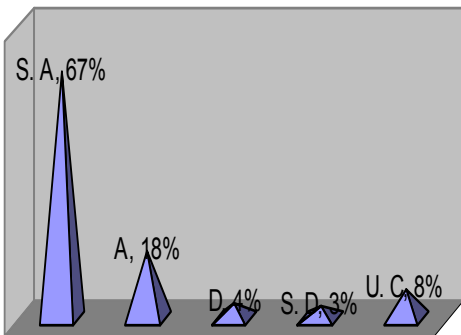
Teacher 1 (AEE 502)

The survey results presented below show that only 49% students agreed that instructor was prepared for each class. Similarly 62% of the students agreed that the teacher used to give them additional material apart from text. Whereas 67% students agreed that the teacher gave citations regarding current situation with reference to Pakistani context. Likewise 69% students agreed that the course was intergraded with real world applications.

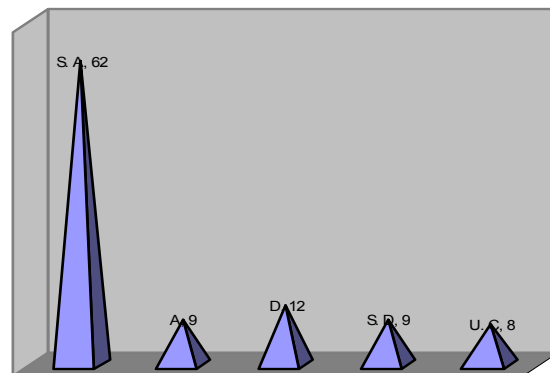


SA= Strongly Agree; A= Agree; UC= Uncertain; D= Disagree; SD=Strongly Disagree

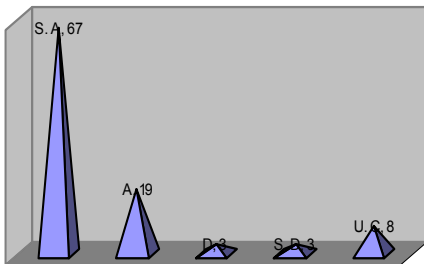
3-The Instructor has completed the whole course



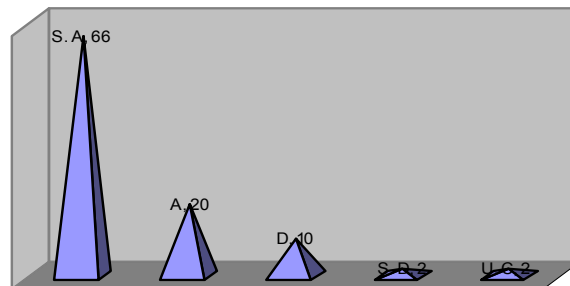
4-The Instructor provides additional material apart from text



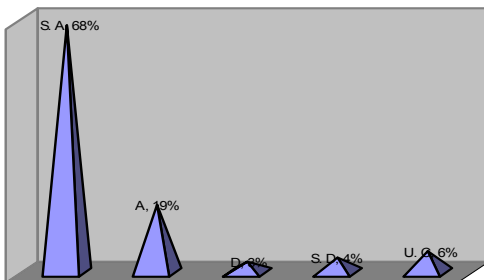
5-The Instructor gives citations regarding current situations With reference to Pakistani context



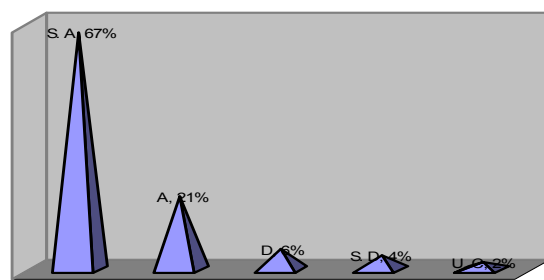
6-The Instructor communicates the subject matter effectively



7-The Instructor shows respect towards students and encourages class participation.

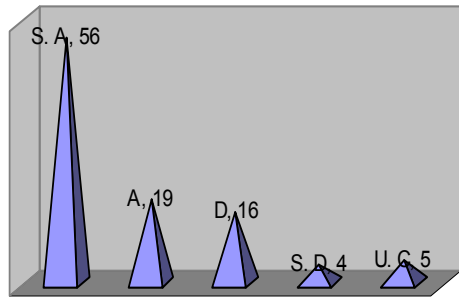


8-The Instructor maintains an environment that is conducive to learning.

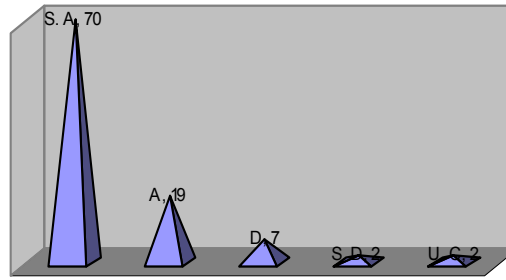


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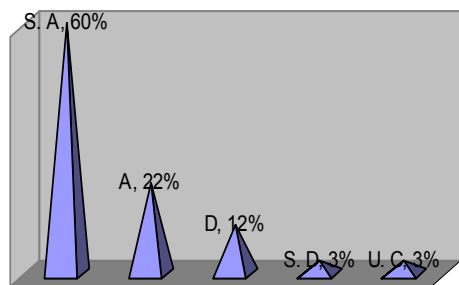
9-The Instructor arrives on time



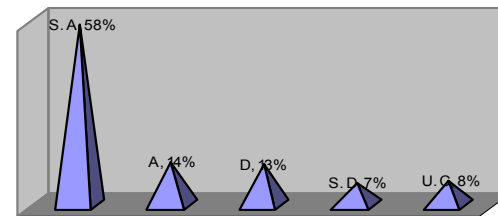
10-The Instructor leaves on time



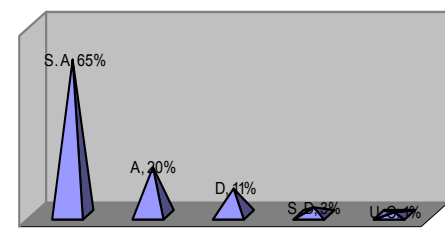
11-The Instructor is fair in examination



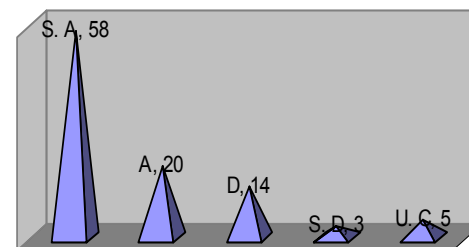
12-The Instructor returns the graded scripts. etc in a reasonable amount of time.



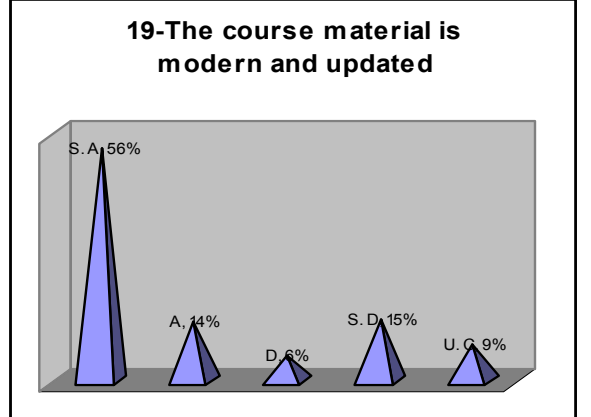
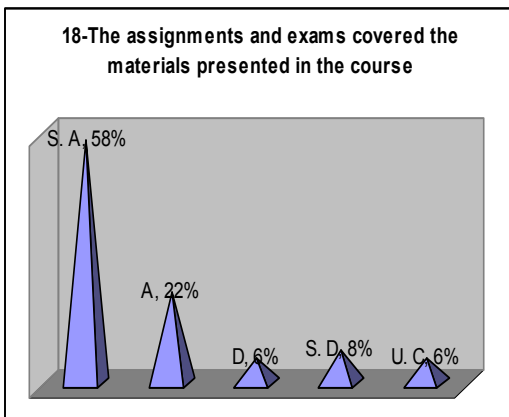
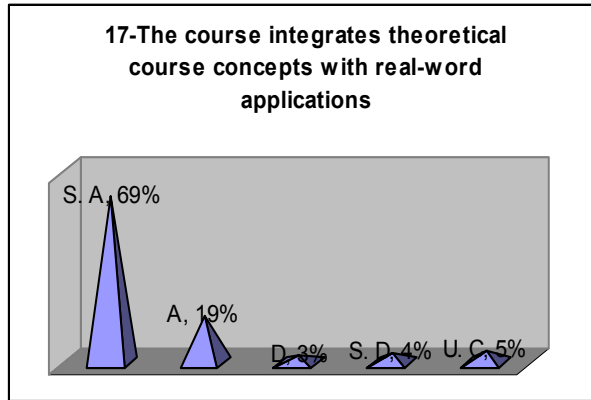
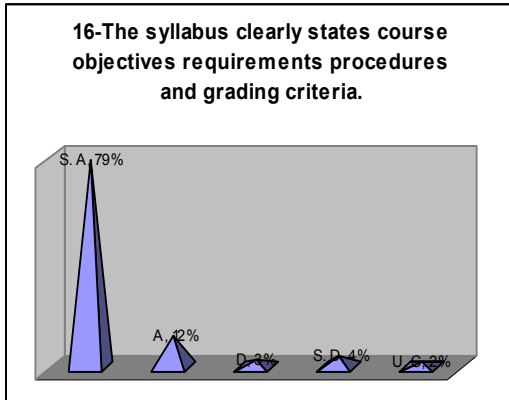
13-The Instructor was available during the specified office hours and for after class consultations.



15-The subject matter presented in the course has increased your knowledge of the subject.



SA= Strongly Agree; A= Agree; UC= Uncertain; D= Disagree; SD=Strongly Disagree



SA= Strongly Agree; A= Agree; UC= Uncertain; D= Disagree; SD=Strongly Disagree

General Comments of the Students about the Teacher

Weaknesses:

- Teacher should encourage class participation.
- Teacher should improve his teaching skills.
- Pattern of lectures changes-dictates lectures.
- Teacher should arrange field visits and study tours to learn more practically.

Strengths:

- Teacher was guiding.
- Teacher was nice and humble.

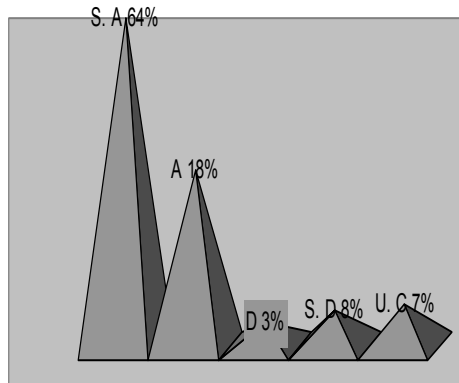
Student Course Evaluation

The courses of the respective teachers were also evaluated as per Proforma 1 (Annexure-1) and the results are shown in Fig-2. It is clear from the figure that the course taught by the teacher 2 is on the top securing 4.28 points out of 2 and the course of Teacher 1 is in second number securing 4.21 points. The scores of other courses of respective teachers can be seen from the following graph.

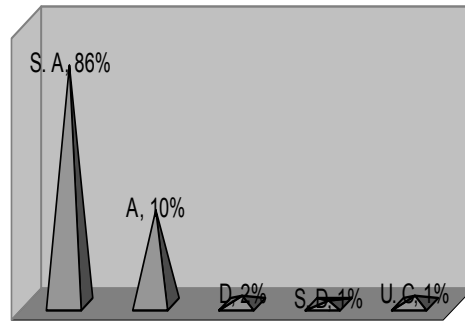
Fig.2 Student Course Evaluation

Desalted evaluation of individual course is given below.

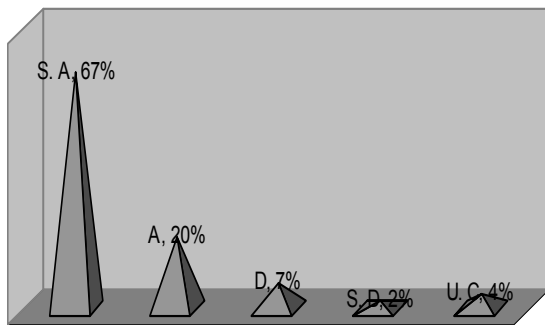
1-The Course Objectives were clear



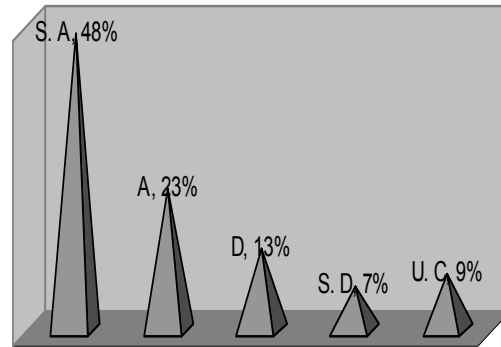
2- The course workload was manageable



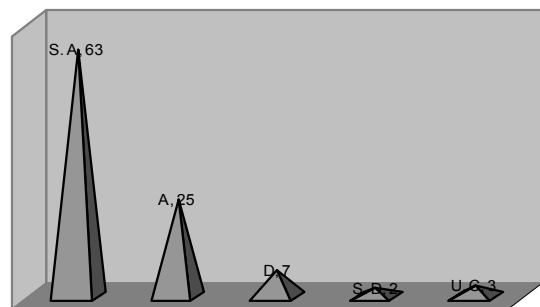
3-The course was well organized (e.g.timely access to materials, notification of changes, etc.)



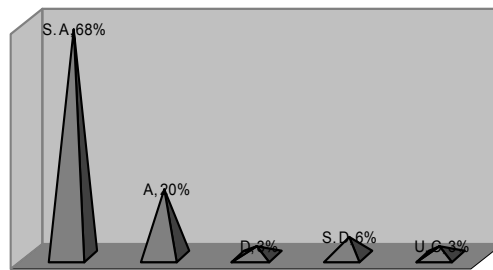
5-Approximate level of your own attendance during the whole course



6-I participated actively in the course

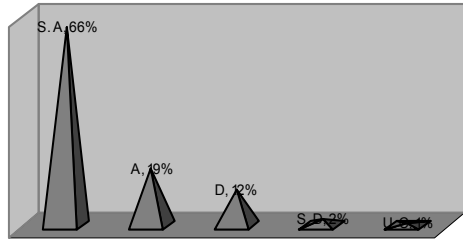


7-I think I have made progress in this course

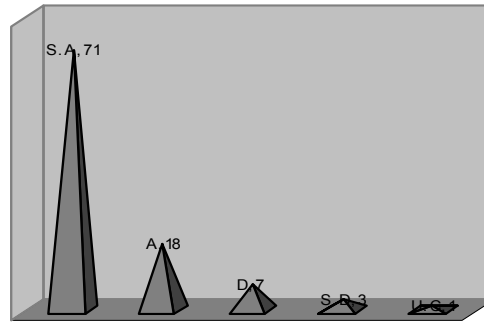


SA= Strongly Agree; A= Agree; UC= Uncertain; D= Disagree; SD=Strongly Disagree

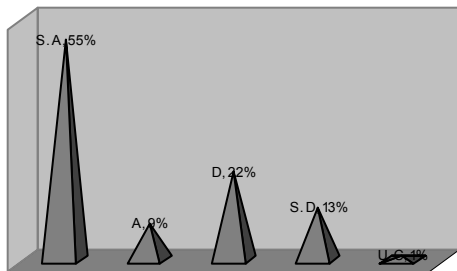
9-I think the course was well constructed to achieve the learning ourcomes (there was a good balance of lecture, tutorials, pratical etc.)



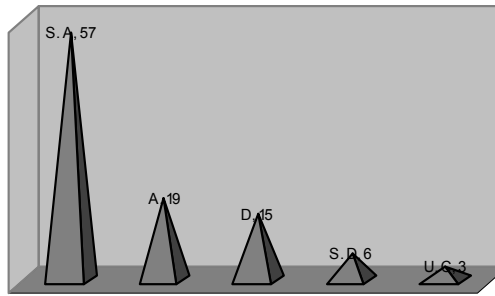
10-The learning and teaching methods encouraged participation



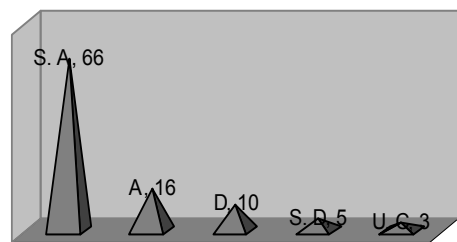
11-The overall environment in the class was conducive to learning



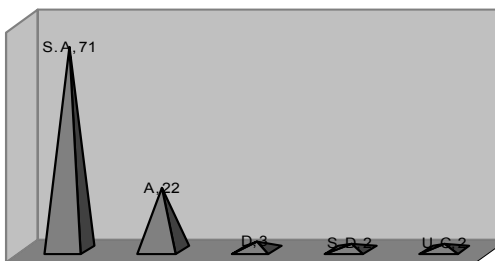
12-Classrooms were satisfactory



4-Learning materials (lesson plans, course notes etc.) were relevant and useful

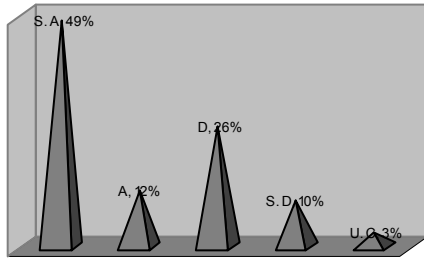


15-Recommended reading books etc. were relevant and appropriate

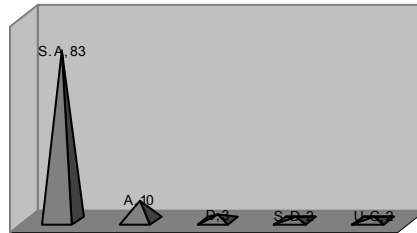


SA= Strongly Agree; A= Agree; UC= Uncertain; D= Disagree; SD=Strongly Disagree

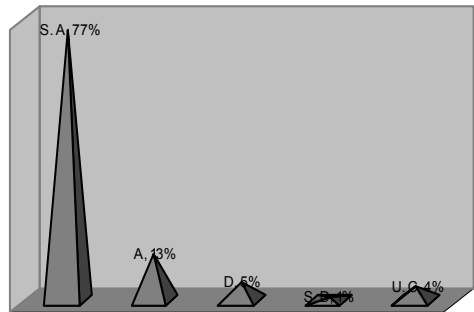
16-The provision of learning resources in the library was adequate and appropriate



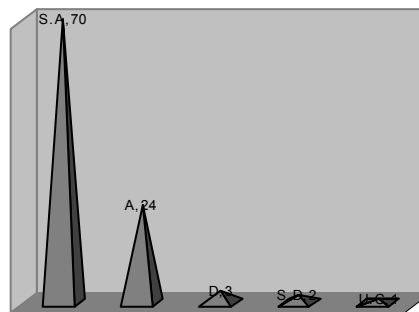
17-The provision of learning resources on the web was adequate and appropriate. (if relevant)



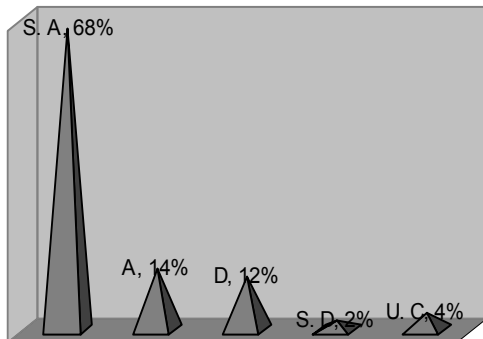
19-The course stimulated by interest and thought on the subject area



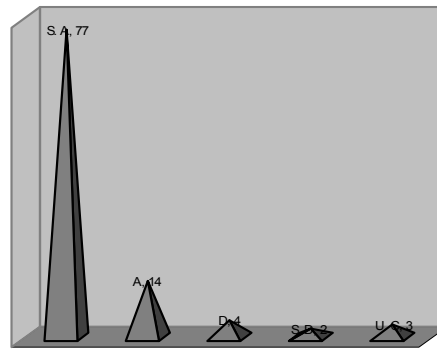
20-The pace of the course was appropriate



21-Ideas and concepts were presented clearly

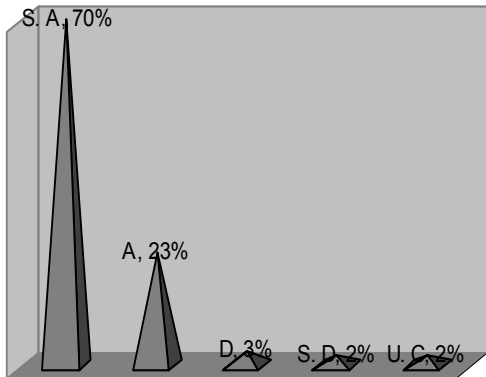


23-The method of assessment were reasonable

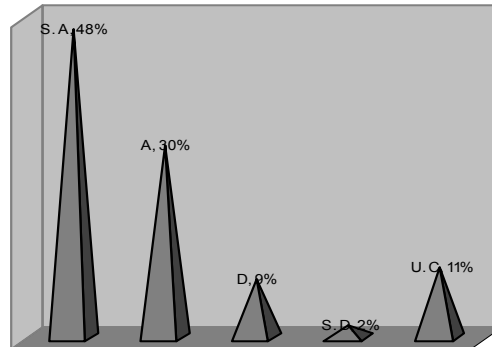


SA= Strongly Agree; A= Agree; UC= Uncertain; D= Disagree; SD=Strongly Disagree

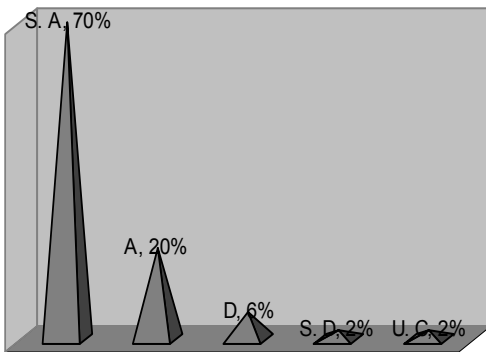
24-Feedback on assessment was timely



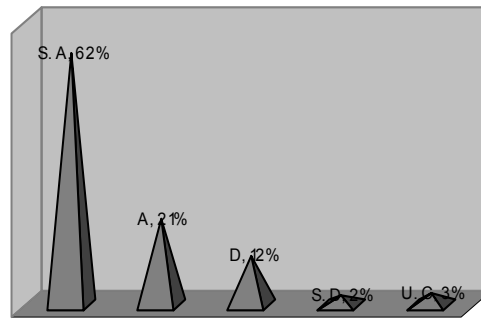
25-Feedback on assessment was helpful



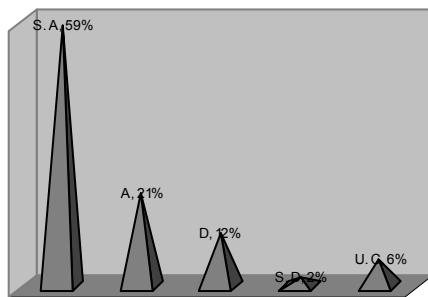
27-I understood the lectures



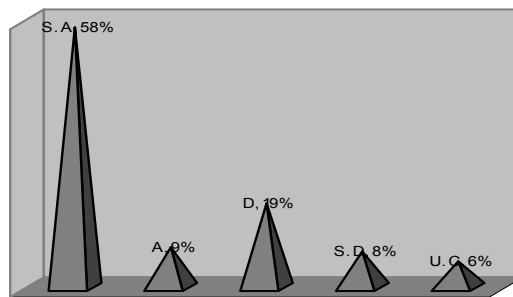
28-The material was well organized and presented



29-The instructor was responsive to student needs and problems

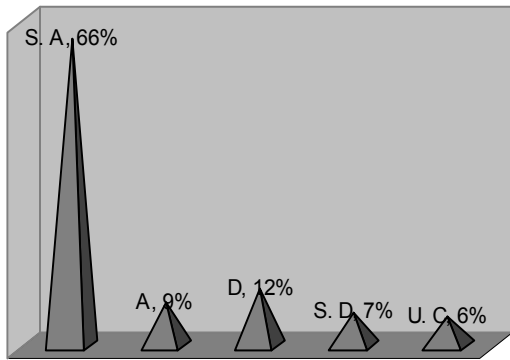


30-Had the instructor been regular throughout the course?

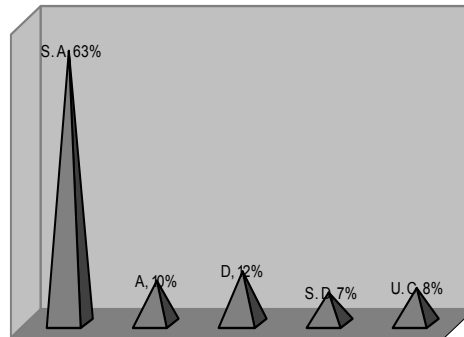


SA= Strongly Agree; A= Agree; UC= Uncertain; D= Disagree; SD=Strongly Disagree

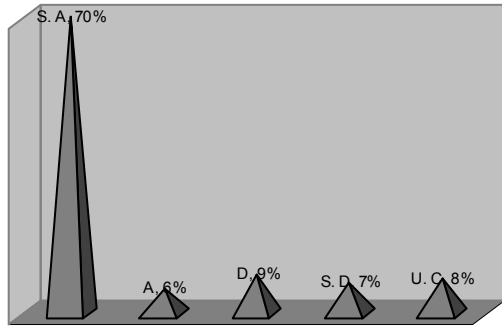
31-The material in the tutorials was useful



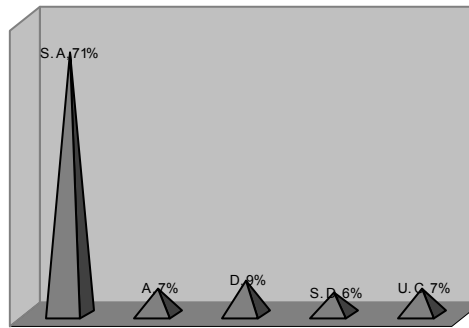
32-I was happy with the amount of work needed for tutorials



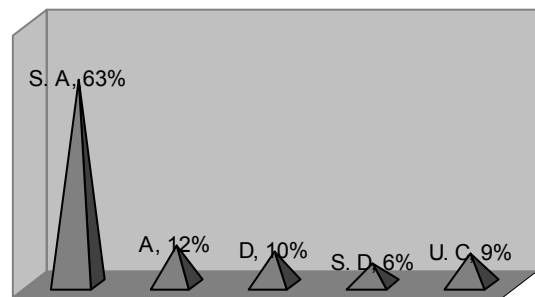
33-The tutor dealt effectively with my problems



34-The materials in practical was useful



35-The demonstrators dealt effectively with my problems



SA= Strongly Agree; A= Agree; UC= Uncertain; D= Disagree; SD=Strongly Disagree

General Comments of the Students about this Course

Weaknesses:

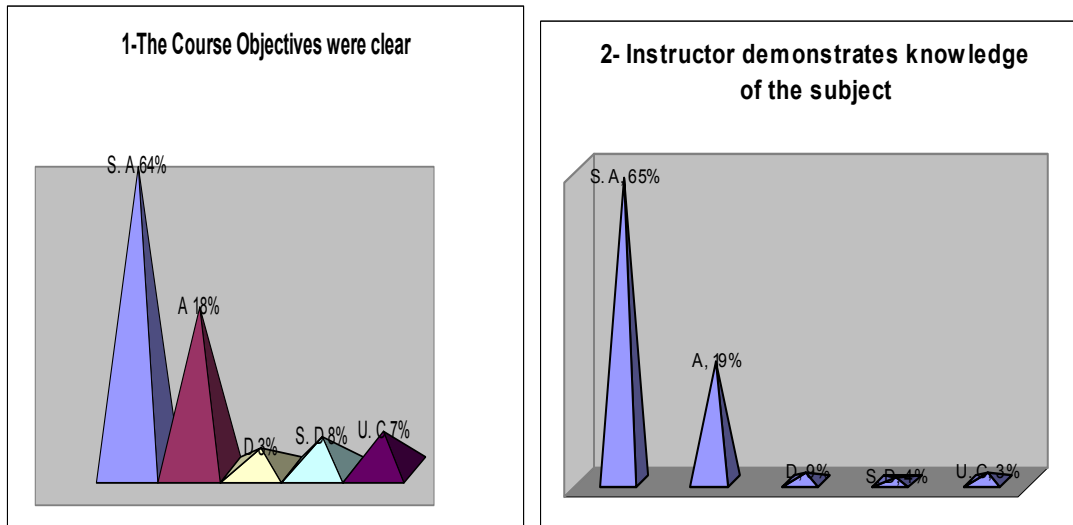
- Learning environment and resources were not satisfactory.
- Usage of visuals, practical demonstrations and multimedia can make the course interesting and effective.
- Course objectives must be clearly defined.
- Projector and multimedia should be used to deliver lectures.
- Recommended books were not available in the library.

Strengths:

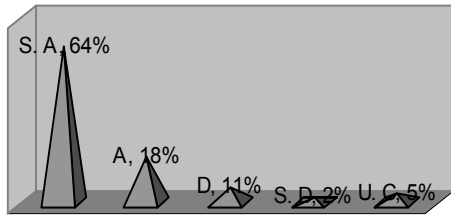
- Course was interesting and useful.
- Course was helpful for future.

AEE 502 (Teacher 1)

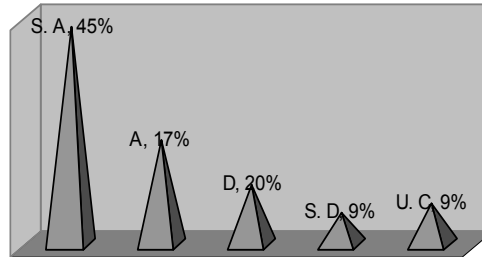
It is evident from the following charts that most of the students were satisfied with the course. However 62 % students strongly disagreed with the level of their own attendance in this course. Five percent respondents disagreed that they actively participated, made progress and teaching methods encouraged their participation in this course. But 68 % students were of the view that class room environment was satisfactory. Similarly 52 % students agreed that learning resources in the main library were adequate. But 37 % pointed out that they were not provided appropriate learning resources.



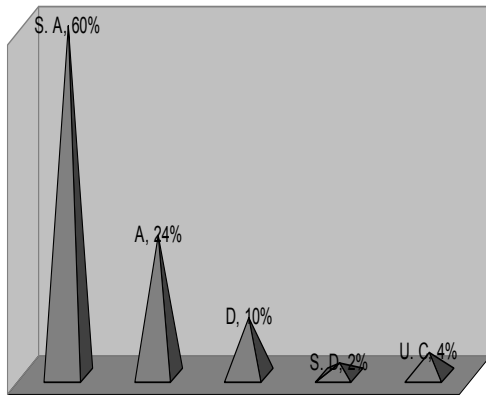
3-The course was well organized (e.g.timely access to materials, notification of changes, etc.)



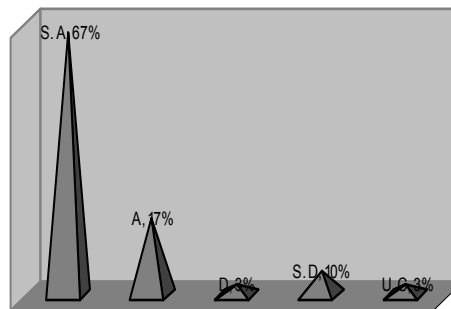
5-Approximate level of your own attendance during the whole course



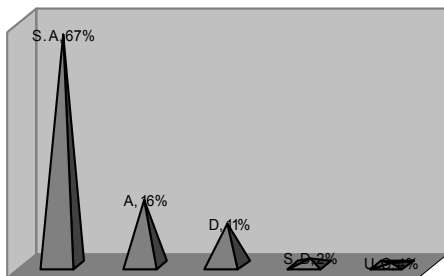
6-I participated actively in the course



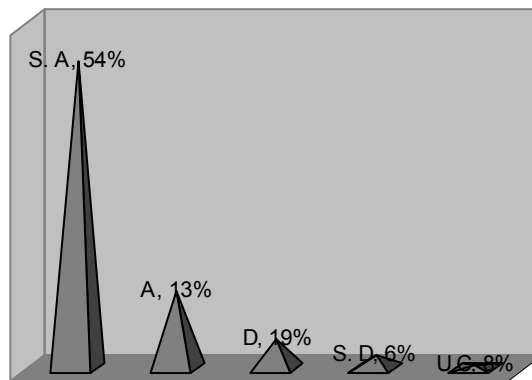
7-I think I have made progress in this course



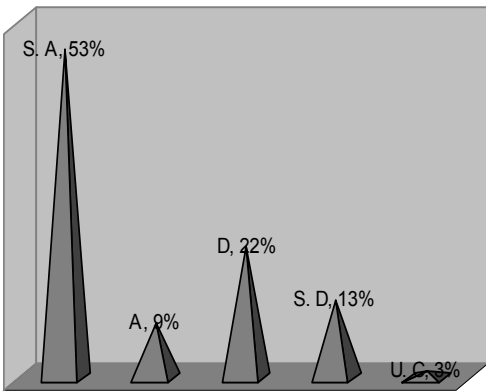
9-I think the course was well constructed to achieve the learning ourcomes (there was a good balance of lecture, tutorials, pratical etc.)



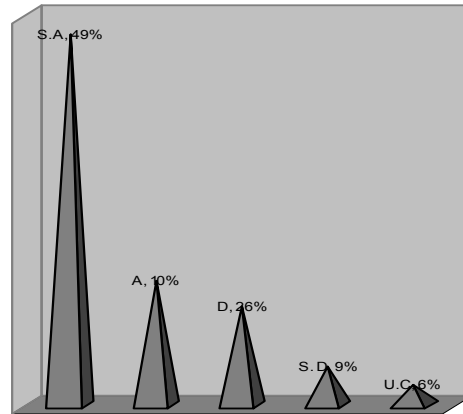
10-The learning and teaching methods encouraged participation



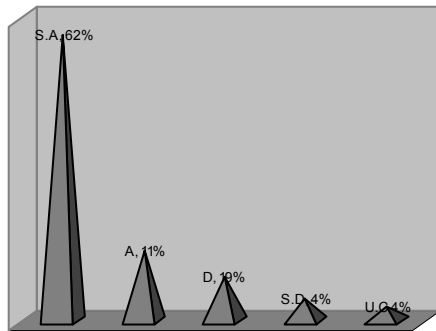
11-The overall environment in the class was conducive to learning



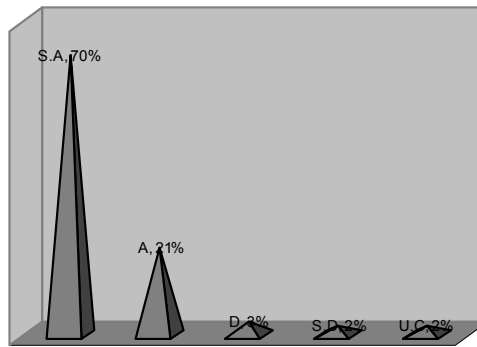
12-Classrooms were satisfactory



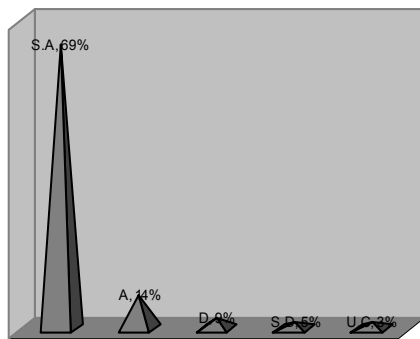
14-Learning materials (lesson plans, course notes etc.) were relevant and useful



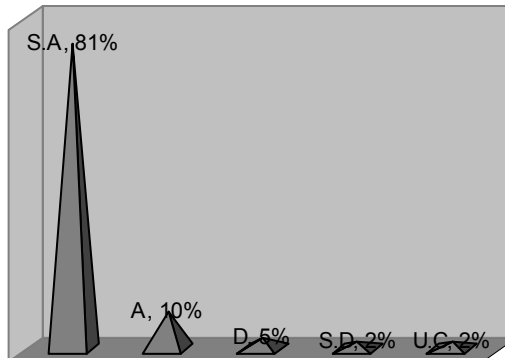
15-Recommended reading books etc. were relevant and appropriate



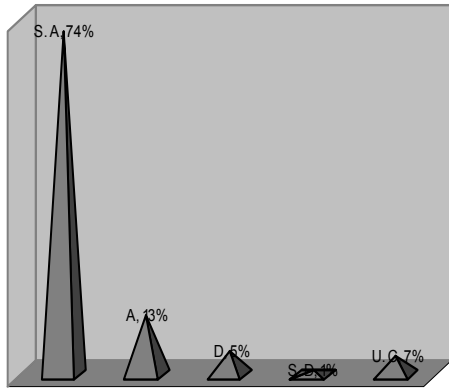
16-The provision of learning resources in the library was adequate and appropriate.



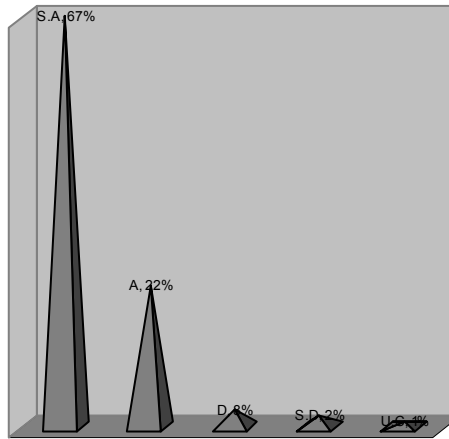
17-The provision of learning resources on the web was adequate and appropriate. (if relevant)



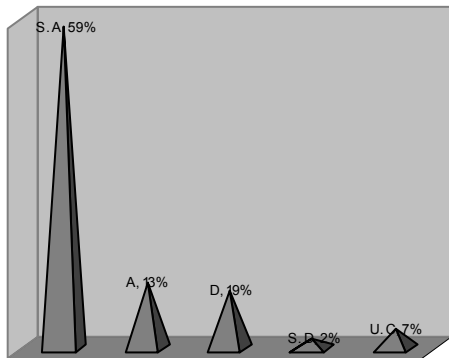
19-The course stimulated by interest and thought on the subject area



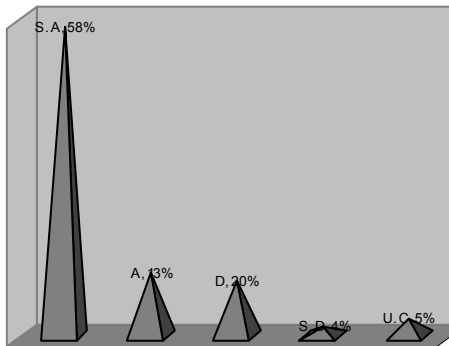
20-The pace of the course was appropriate



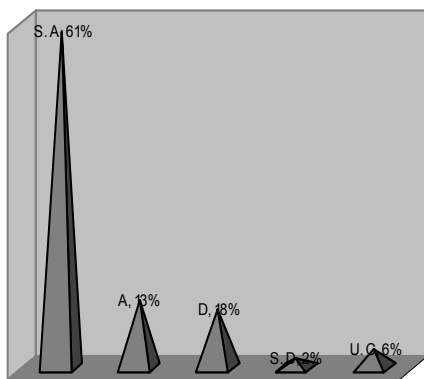
21-Ideas and concepts were presented clearly



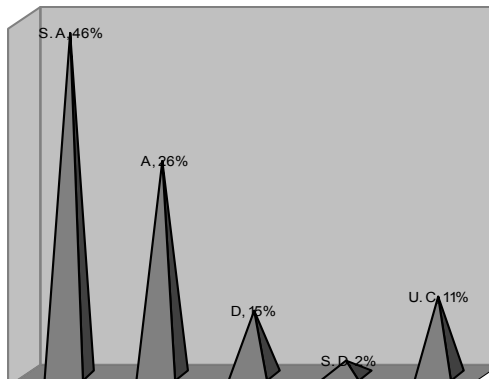
23-The methods of assessment were reasonable



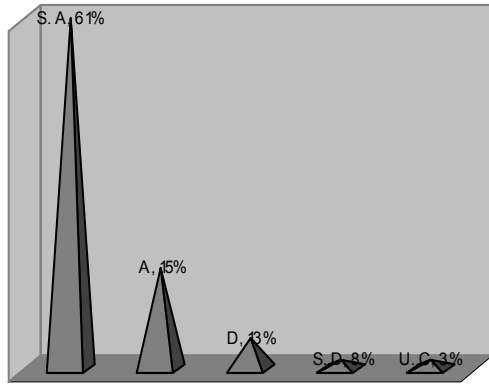
24-Feedback on assessment was timely



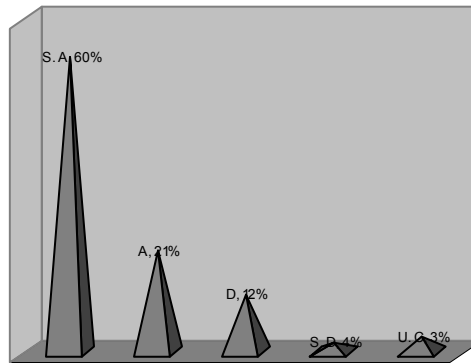
25-Feedback on assessment was helpful



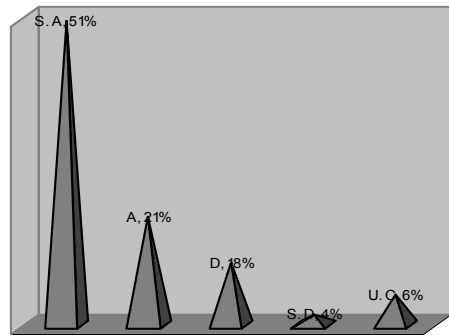
27-I understood the lectures



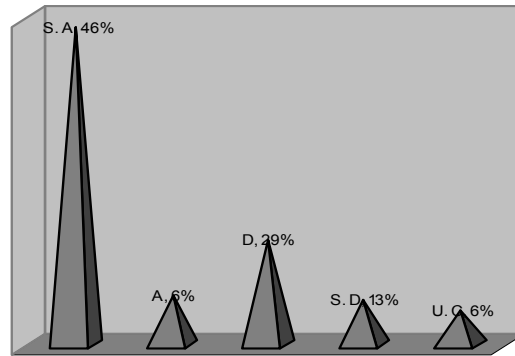
28-The material was well organized and presented



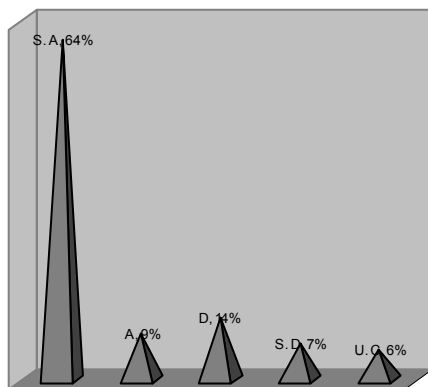
29-The instructor was responsive to student needs and problems



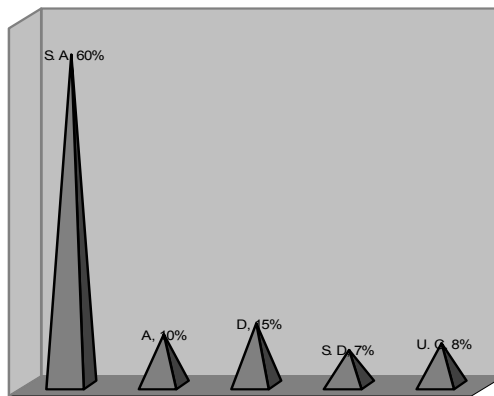
30-Had the instructor been regular throughout the course?



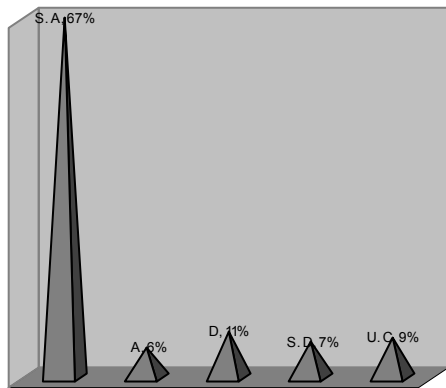
31-The material in the tutorials was useful



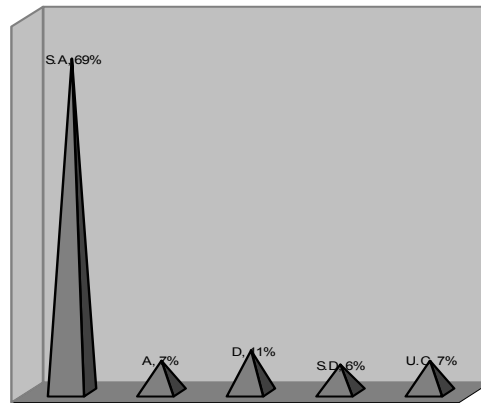
32-I was happy with the amount of work needed for tutorials



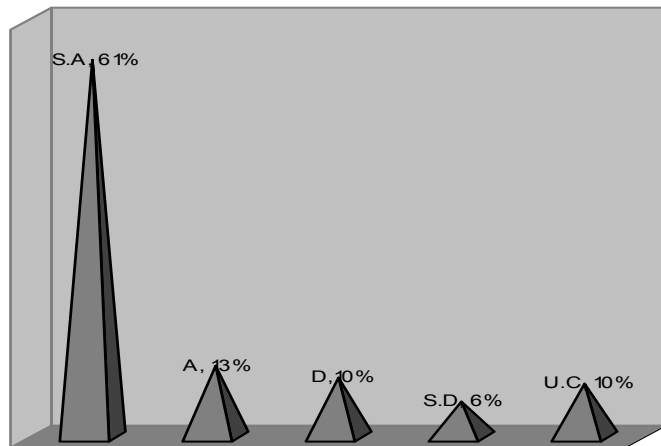
33-The tutor dealt effectively with my problems



34 -The materials in practical was useful



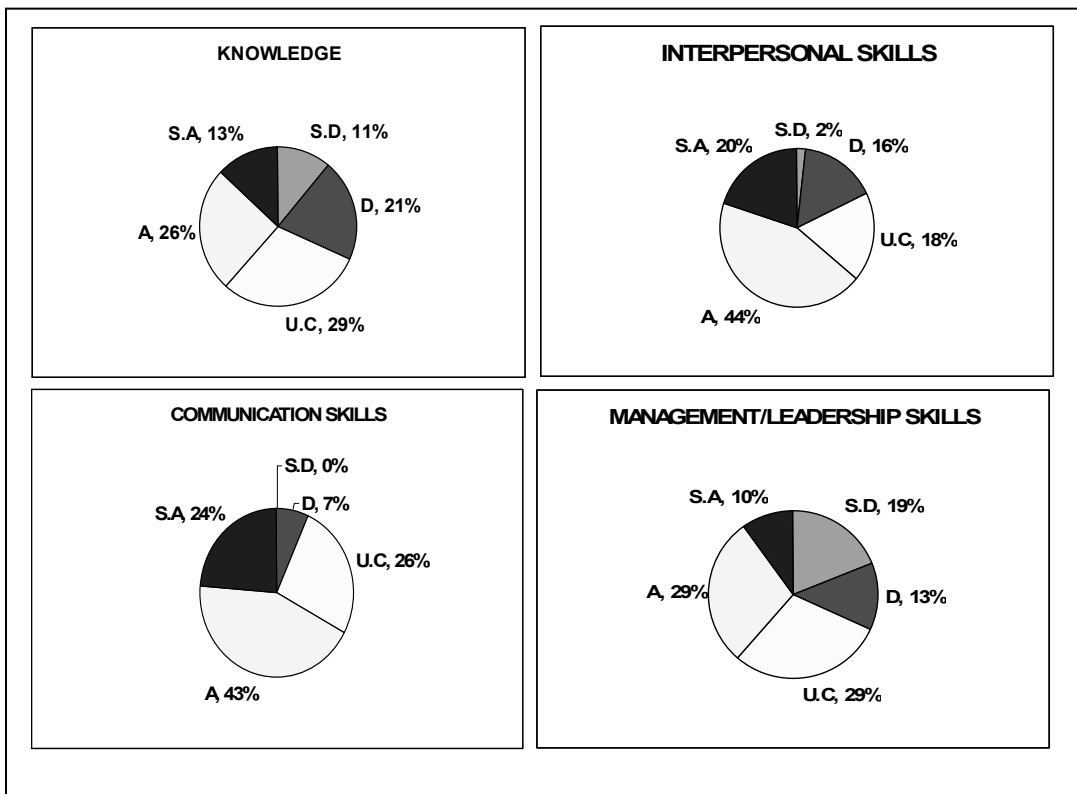
35-The demonstrators dealt effectively with my problems



Alumni survey results

Since majority of the Agricultural Extension graduates are entering in Public and Private organizations. Questionnaires were sent to them for their feedback.

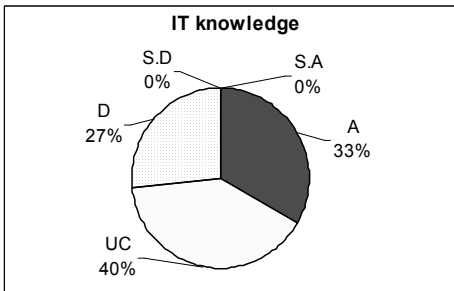
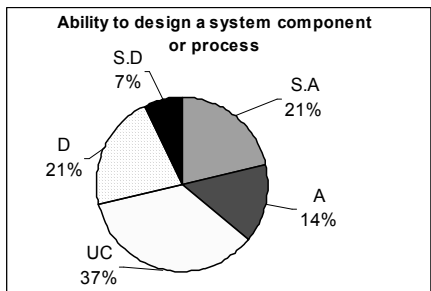
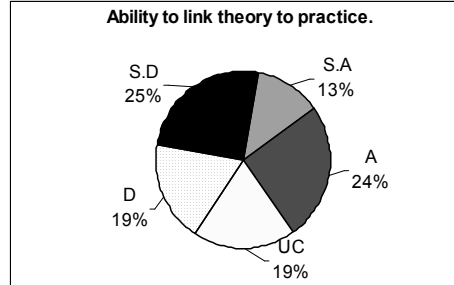
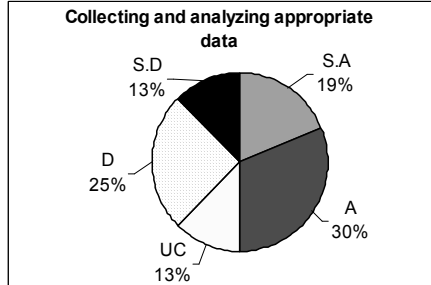
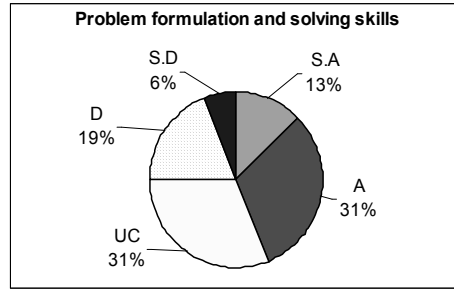
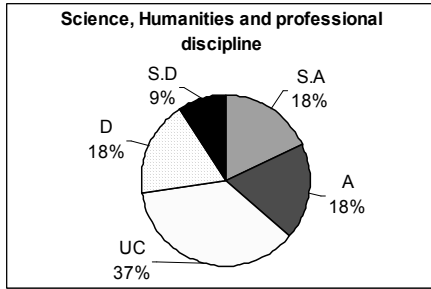
The Alumni survey was conducted as per Proforma 7 and the overall results of program assessment by the Alumni are presented in figures given below.



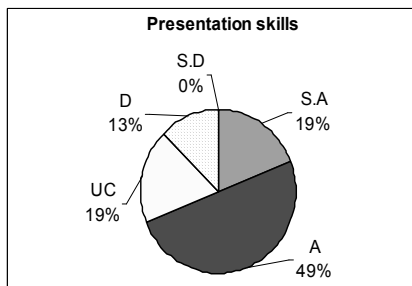
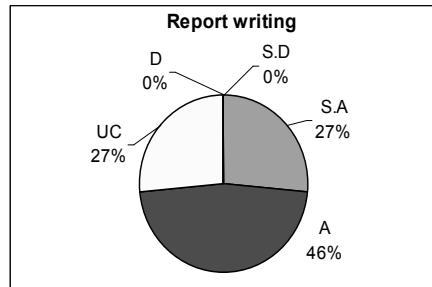
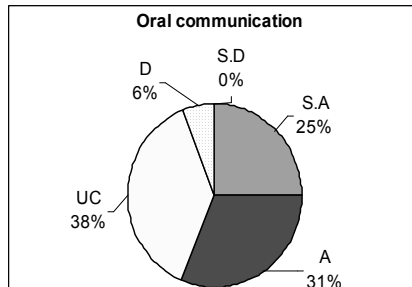
A = Agreed D = Disagree U.C = Uncertain

It is evident from the pie chart, regarding knowledge that 26 % of the students were agreed, while 21 % and 29% students were disagree and uncertain respectively. The chart regarding communications skills showed that 43 % of the students were agreed and 7 % were disagreed and uncertain (26%). The chart regarding interpersonal skills showed that 20 % of the students were strongly agreed while 16 % were disagreed and 18% were uncertain. Management/ leadership skills chart revealed that 29 % of the students were agreed and 13 % were disagreed and uncertain (29%). The results of individual parameters are given in the following figures.

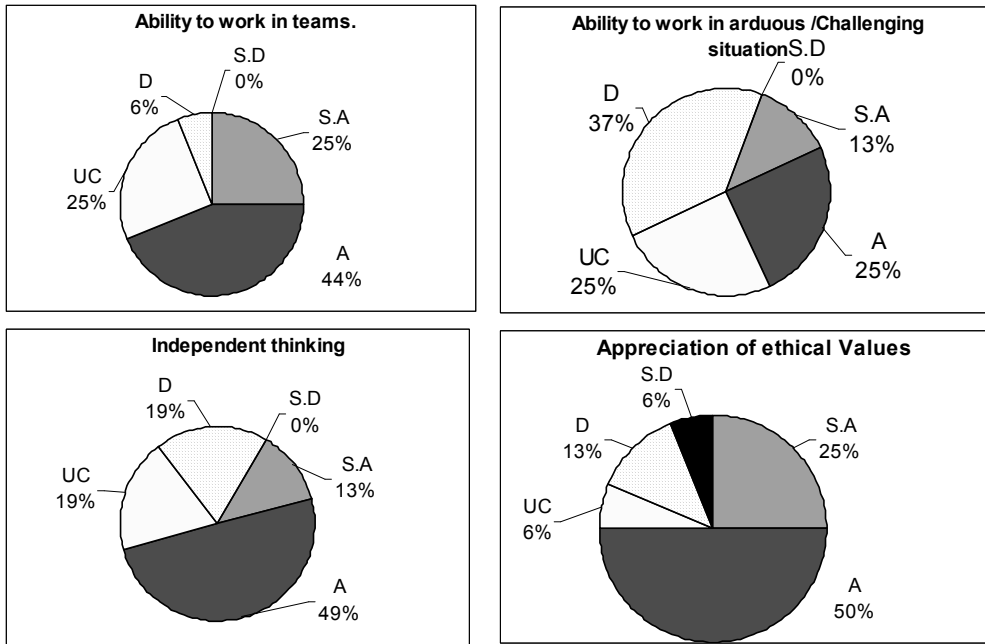
Knowledge



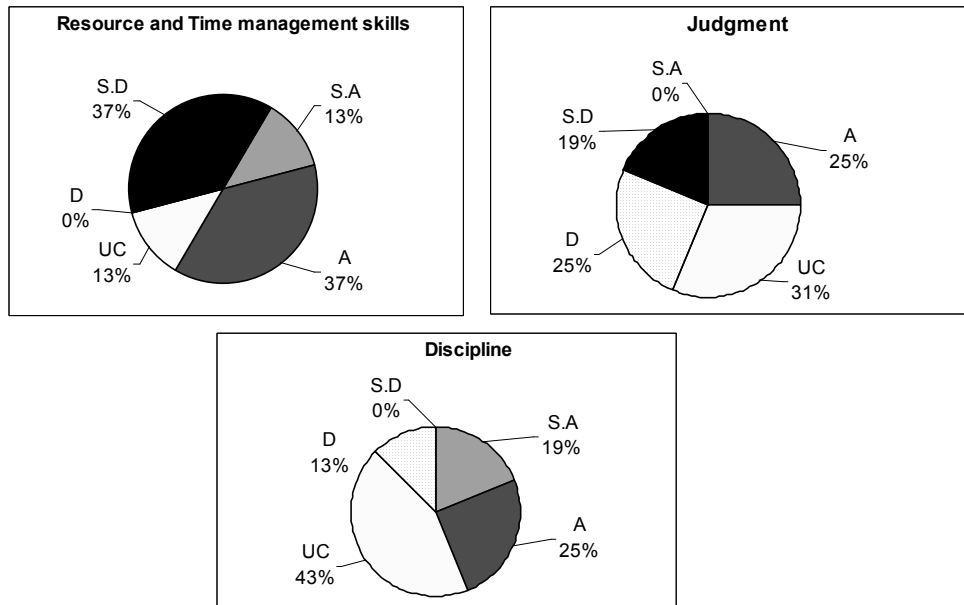
Communication Skills



Interpersonal Skills



Management/Leadership Skills



Skills and Capabilities Reflected in Performance as Extension Specialists:

Students have developed ability to apply knowledge of Agricultural Extension and to work as professionals, to build confidence and communicate effectively in writing, oral and demonstration to use modern tools,

techniques and skills for their profession, to formulate and design the experiments/project and to work effectively in a team, to manage problems and imbibe ability to recognize future needs.

Strength of the Department:

It is very important to mention here that since the start of Agricultural Extension as a major subject for B. Sc. (Hons.) degree, it has been pity that only one lecturer has been serving with the help of visiting faculty. The ice was broken by the recruitment of a new lecturer in January 2007. But still there is sullen dearth of faculty members. There is dire need of faculty members from Professors to lecturers. Although, the main strength of the department is the enthusiasm of teachers, with full acquaintance of their respective subjects, having vast knowledge of local agriculture production systems and prevailing problems. Faculty members have local degrees but are experts in their fields. They have implemented their in hand and previous experience remarkably. But, unfortunately, they have not Ph. D. degrees in their respective discipline. Infact, they want to have advanced degrees but due to scarcity of teaching faculty they can not move for higher education. It is high time that a national or international professor should be given an opportunity to further strengthen the department by the Higher Education Commission (HEC).

Weaknesses Identified in the Program:

Advanced teaching and research is being handicapped due to lack of important equipment as audio-visual aids including projected and non-projected aids for graduate students. Latest literature and reviews are hardly available. There is a need for short term foreign training to these faculty members.

Major Future Improvement Plans:

- To impart quality education in Agricultural Extension through audio visual aids and modern tools along with provision of latest literature, journals, books, reviews and access to internet.
- To extend facilities for farmers to directly or indirectly interact with the Subject Matter Specialists (SMS) and develop liaison.
- To prepare hand-outs, brochures and pamphlets for the farmers and advisory services
- To equip the graduate laboratory with the modern and sophisticated aids.
- Human Resource development in Agricultural Extension to meet future challenges for sustainable agriculture leading to self sufficiency in food.
- To emphasize problem oriented research on specific areas like adoption of recommendations, gap between research and farming community.

- Overall enhancement of knowledge and skills of faculty members in relation to the latest global advancements in this discipline through exchange programs, short trainings and collaborative research projects within and outside Pakistan.

QUANTITATIVE ASSESSMENT OF THE DEPARTMENT (Last three years)

Sr. #	Particular	No.	Remarks
i	Undergraduates (B.Sc. Hons.) produced	55	70% of them joined different institutes for higher education, 25% got employment and 5% did not continue their education.
ii	Students: Faculty rates	10:1	
iii	Technical : No Technical ratio	4:1	
iv	Average grade point	3	Fulfils HEC criteria

The evaluation process indicated high efficiency of system and satisfactory impact of outcomes. Almost all the graduate got jobs in various organizations (provincial department, universities, research organizations, banks and private firms, NGO's and Rural Support Programmes).

PRESENT PERFORMANCE MEASURES FOR RESEARCH ACTIVITIES

Faculty	Publications (National & International)	Others	Projects
Mr. Arshad Ali	02	0	0
Mr. Muhammad Ali	01	0	0

Evaluation of the Administrative Services offered by the department:

- The department maintains a ratio of 4:1 for the academic (technical) and administrative non-technical staff which fulfils the standard set by the HEC.
- Administrative meetings (departmental, university, academic council, and syndicate) are attended as and when required.
- Quick office disposal; no complaint pertaining to delay has ever received from authorities.
- Proper records of individual students etc. are maintained.

Students are reasonably happy about the administrative services provided by the department.

CRITERION 2: CURRICULUM DESIGN AND ORGANIZATION

CRITERION 2: CURRICULUM DESIGN AND ORGANIZATION

Degree Title: B.Sc. (Hons.) Agriculture, Majoring Agricultural Extension:

Purpose: All the courses for degree program were developed by a committee constituted by the Higher Education Commission, Pakistan. The committee consists of experts and learned professors, subject-matter specialists from other universities and research organizations from Pakistan. When and if needed, curriculum for the Department of Agricultural Extension is revised/updated through different bodies. At department level, Board of Studies, which comprised of senior faculty members, is responsible for updating the curriculum. This body is authorised to formulate syllabus and course content. The chairman of the Department is the convener of this body. The courses are then sent to the Board of Faculty for approval. The Dean of the Faculty, who is also the Convener and chairman, conducts meeting. As per university rules courses after the approval from the Faculty Board, are placed before the University Academic Council for their approval.

Definition of Credit Hour:

A student must complete a definite number of credit hours. One credit hour is one theory lecture or two hours laboratory (practical / week). One credit hour carries 20 marks.

Degree Plan:

Presently one degree program is organized by the department.

B.Sc. (Hons) Agric. majoring in Agricultural Extension: The B. Sc. (Hons) degree program consists of 4 academic years/ 8 semesters.

Pre-requisites

Minimum Academic Requirements:

A person holding intermediate science certificate (Pre-Medical & Pre-Engineering) or an equivalent certificate from any recognized institute with at least second division or overall 45 % marks.

The candidates domiciled in the Barani Areas of Punjab are eligible for admission. The admission to the university is on merit which is determined on entry test and past academic performance. Merit is determined as per following formula:

Mid Examination	10%
Intermediate	50%
Entry Test	40%

Degree Requirements:

As a whole a student has to study 140 credit hours. In first four semesters, students study minor courses (Agriculture Sciences, Information Technology and Veterinary Sciences etc.). After the completion of four semesters, students choose a specialized field (major) of study. In the next four semesters courses of major specialized subject are taught including some other courses of other departments (refer Table on page no.). The final semester includes internship of 15 credit hours. Students are placed in public institutes, NGO's and RSP's to learn extension techniques practically.

Degrees are awarded after completing the required number of credit hours (courses) followed by internship report and its presentation.

Minimum Grade Point Average for obtaining the degree in 2.50. To remain on the roll of the university a student shall be required to maintain the following minimum GPA/CGPA in each semester.

Minimum Grade Point Average required being on the role of the University

Semester	CGPA
First	0.75
Second	1.00
Third	1.25
Fourth	1.50
Fifth	1.75
Sixth	2.00
Seven	2.25
Eight	2.50

Examination & Weightage:

a) Theory

In theory paper, students' evaluation is done by mid-term examination, assignments/quizzes and final examination. Both the mid-term and final examinations are compulsory. A student who misses the mid-term examination is not allowed a make-up examination and is awarded zero marks in that examination. In case a student does not appear in the final examination of a course, he/she will be deemed to have failed in that course. In theory, weightage to each component of examination is as prescribed here under:

Mid Examination	30%
Assignments	10%
Final Examination	60%

b) Practical

For practical examination (if applicable) 100% weightage is given to practical final examination

Eligibility for Examination:

A student is eligible to sit for the examination provided that he/she has attended not less than 75 % of the classes in theory and practical, separately. The minimum pass marks for each course are 40% for undergraduate.

SCHEME OF STUDIES FOR B. Sc. (HONS.) AGRICULTURE

First semester

Course No.	Course Title	Credit Hours
AGR-301	Basic Agriculture	3(2-2)
AEC-301	Principles of Agricultural Economics	3(3-0)
ENG-301	Functional English	3(3-0)
HORT-301	Introduction to Horticulture	3(2-2)
IS-301/ ET-301	Islamic Studies/ Ethics	2(2-0)
MATH-301/ BIOL-301	Mathematics-I/ Biology-I	3(3-0) 3(2-2)
SS-301	Introduction to Soil Science	3(3-0)

Second semester

Course No.	Course Title	Credit Hours
AGR-302	Summer Crops	3(2-2)
ENG-302	Communication Skills	3(3-0)
FT-302	Introduction to Food Sciences Technology	2(2-0)
HORT-302	Principles of Horticultural Practices	2(1-2)
MATH-302/ BIOL-302	Mathematics-II/ Biology-II	3(3-0) 3(2-2)
RF-302	Introduction to Rangeland & Wildlife Management	3(2-2)
SS-302	Soil and Water Conservation	2(2-0)
SSH-302	Pakistan Studies	2(2-0)

Third semester

Course No.	Course Title	Credit Hours
AGR-401	Winter Crops	3(2-2)
AS-401	Animal Husbandry	3(2-2)
ENT-401	Introductory Entomology	2(1-2)
FT-401	Food Processing and Preservation	3(2-2)
IT-401	Introduction to Information Technology	3(1-4)
PBG-401	Introductory Genetics	2(1-2)
PP-401	Introduction to Plant Pathogens	2(1-2)
RF-401	Introduction to Agro forestry and Watersheds	2(1-2)

Fourth semester

Course No.	Course Title	Credit Hours
AGR-402	Field Crop Physiology	3(2-2)
ENT-402	Applied Entomology	3(2-2)
AEE-402	Introduction to Agricultural Extension Education	3(3-0)
AS-402	Poultry Husbandry	2(1-2)
PBG-402	Introductory Plant Breeding	3(2-2)
PP-402	Introduction to Plant Pathology	3(2-2)
STAT-402	Introduction to Statistics	3(3-0)

Fifth semester

Course No.	Course Title	Credit Hours
General Courses		
AEN-501	Farm Mechanization	2(1-2)
AGRO-501	Arid Zone Agriculture	2(2-0)
SOC-501	Rural Pestrals Sociology	2(2-0)
Major Courses		
AEE-501	Extension Programme development	3(2-2)
AEE -503	History and Philosophy of Agricultural Extension Education	3(3-0)
AEE -505	Rural development Programmes in Pakistan	3(2-2)
AEE -507	Rural youth and Women in Agricultural Development	3(2-2)
AEE -509	Effective Communication Skills in Agricultural Extension	3(2-2)

Sixth semester

Course No.	Course Title	Credit Hours
General Courses		
AEN-502	Conservation Engineering and Water Resources Development	2(1-2)
SS-508	Instrumentation and Laboratory Techniques	2(0-4)
Major Courses		
AEE -502	Agricultural Extension Methods	3(2-2)
AEE -504	Administration and Supervision	3(3-0)
AEE -506	Adult Learning and Continuing Education	3(3-0)
AEE -508	Communication and Journalism	3(2-2)
AEE -510	Audio-Visual Aid in Agricultural Extension	3(2-2)

Seventh semester

Course No.	Course Title	Credit Hours
General Courses		
STAT-601	Experimental Designs	2(1-2)
MGT-601	Introduction to Agri. Business Management	2(2-0)
Major Courses		
AEE -601	Human Resources Management	3(2-2)
AEE -603	Agricultural Technology Transfer	3(2-2)
AEE -605	Monitoring and Evaluation of Agricultural extension	4(3-2)
AEE -607	Introduction to Research Methods in Agricultural Extension	3(2-2)
AEE -609	Project Planning and Scientific Writing	2(1-2)

Eighth semester

Course No.	Course Title	Credit Hours
AEE-602	Internship	15(0-30)

Detailed course contents of undergraduate schemes of studies are given in annexure-I.

Standard 2.1: Assessment of the Agricultural Extension Curriculum

The assessment of curriculum given in the following table and the courses are cross tabulated according to the program outcomes.

COURSES vs PROGRAM OUTCOME

Course	Outcomes				
	1	2	3	4	5
Communication	xx x	xxxx	x x	xxxx	xxxx
Administration and Supervision	x x x	xx x	x x x	xx	x
Audio-Visual Aids	x x	x x	x x x x	xxx	xxx
Human Resources Management	x x x	x x x	x x	xxx	xx
Agricultural Technology Transfer	x x x	x x	xx	xxxx	xxxx

x = Relevant & satisfactory to some extent

x x = Relevant & satisfactory

x x x = Very relevant & satisfactory

x x x x = Highly relevant & highly satisfactory

- The curriculum fits very well and satisfies the core requirements for the program, as specified the respective accreditation body.
- The curriculum satisfied the general arts and professional and other discipline required for the program according to demands and requirements set by the Pakistan Higher Education Commission (HEC).

Standard 2-2: Detail of courses representing theoretical background, problem analysis and solution design.

Elements	Courses	Title of the courses
Theoretical backgrounds	AEE 402	Introduction to Agricultural Extension Education
	AEE 503	History and Philosophy of Agricultural Extension Education
	AEE 504	Administration and Supervision
	AEE 506	Adult Learning and Continuing Education
Problem analysis	AEE 505	Rural Development Programmes in Pakistan
	AEE 507	Rural Youth and Women in Agricultural Development
	AEE 508	Communication and Journalism
	AEE 601	Human Resource Management
	AEE 605	Monitoring and Evaluation in Agricultural Extension
	AEE 607	Introduction to Research Methods in Agri-Extension
Solution Design	AEE 501	Extension Programme Development
	AEE 502	Agricultural Extension Methods
	AEE 509	Effective Communication Skills in Agriculture Extension
	AEE 510	Audio-Visual Aids in Agricultural Extension
	AEE 603	Agricultural Technology Transfer
	AEE 609	Project Planning and Scientific Writing

Standard 2-3: Information Technology Component of the Curriculum Must Be Integrated

Throughout The Program:

While the curriculum was prepared, all aspects of information technology were considered and after a critical analysis, relevant aspects were integrated into the program as:

- Three computer and I.T. courses (6 credit hours) and two courses of statistics (6 credit hours) based on computer practical usage were included in the curriculum to fulfill the I.T. requirements for the students of B.Sc (Hons) Agric. degree.

Standard 2-4: Enhancing Oral and Written Communication Skills of the students

- The 2 courses regarding developing communication skills have been integrated in the curriculum of B. Sc. (Hons.) Agriculture level.
- Assignments are given to B. Sc. (Hons.) Agric. students on specific titles (part of the course) which are presented orally and are submitted as written report, to increase their oral and written communication skills.
- As it is important to note that in every course students have to present at least one topic of their interest or on current topic in the form of presentation with the help of multimedia and or A. V. aids.

CRITERION 3: LABORATORIES AND COMPUTING FACILITIES

Criterion 3: Laboratories and Computer Facilities

There is only one laboratory which we have got few months ago in the department. The facilities and shortcomings of these laboratories are listed as under.

- **Laboratory Title:** Audio-Visual Aid Laboratory for the Under-graduate students.
- **Location and Area:** Department of Agric. Extension and Education, Faculty of Crop and Food Sciences, C-Block, 2nd Floor, Main Campus
- **Objectives:** Laboratory is used for: Practical exercises and demonstrations to graduate students in their major courses and role playing by the students.
- **Shortcomings:** Laboratory is not well equipped with major audio-visual aids.
- **Safety Regulations:** Safety measures are not available against fire (Extinguishers), minor hazards and accidents, injuries (First Aid Kit). However, the University maintains a Medical Dispensary for such incidents.

Standard 3-1: Laboratory Manuals:

Laboratory manuals for each subject (Extension professional kits, Participatory Rural Appraisal (PRA), Rapid Rural Appraisal (RRA) manuals) are not available. The department does not have even a single book for mini departmental library. However, teachers are used to getting books from the main university library to prepare the lectures.

Standard 3-2: Support/Laboratory Personal For Maintenance of Laboratory

Only one laboratory attendant is available to maintain laboratory etc. The laboratory attendant does not have the relevant knowledge regarding operating of A. V. aids. There is a need of one Lab. Technician with sound Audio-Visual aid skills.

Standard 3-3: Computing Infrastructure and Facilities

- **Computing facilities support:** Not available to all faculty members and the graduate students.
- **Shortcoming in computing infrastructure:** Computers with internet facilities should be available to all faculty members and graduate students.
- **Safety Arrangements:** There are no proper safety arrangements and no security plan is available in case of emergency. The department is located on the 2nd floor; there are no emergency exits for the lab. No fire extinguishers have been installed in the laboratory. No first aid kits/facilities provided in the laboratory/department.

CRITERION 4: STUDENT SUPPORT AND ADVISING

Criterion 4: Student Support and Advising

Our University organizes support programs for students and provide information regarding admission, scholarship schemes etc. Department in its own capacity arranges orientation and guided tours of the department. Director Students Affairs is also there and arranges various cultural activities and solves the students' problems. However currently there is no Parent/Teacher association.

Standard 4-1: Frequency of Courses

- Courses are taught as per criteria of HEC.
- At undergraduate level subjects/ courses are offered as per scheme of study provided by the HEC and approved by Academic Council.
- Elective courses are offered as per policy of HEC and the University.

Standard 4-2: Structure of the Courses

Both theoretical and field/practical aspects are focused to prepare the students for field challenges. Theoretical problems are explained and assignments are also given to the students whereas, practicals are carried out in the lab and field. Field visits and study tours to various research organizations and NGO's are also organized to keep them update on the latest developments in the area and to stimulate them for discussion through teacher/student interaction.

- Courses are structured and decided in the board of studies meeting.
- At commencement of each semester, faculty members interact frequently among themselves and with students. Students are welcome to ask questions in class and even after the class.
- Emphasis is always given for an effective interaction between each section of B.Sc. (Hons) classes.

Standard 4.3: Guidance to the students

Several steps have been taken to provide guidance to students by different ways such as:

- Students are informed about the program requirement through the chairman office.
- Through the personal communication of the teachers with the students.

- Monthly meetings are organized by the head of the department for counseling of the students. In addition, students can also contact with the relevant teachers whenever they face any problem.
- It is necessary for the students to participate in the monthly meeting.
- In case of some problem Director Student Affairs appointed by the university, helps the students. Tutorial System in all departments has also been introduced. Two periods on Thursday are reserved for extracurricular activities. Due to great significance, students are being motivated to participate in such activities. However, there is no such counseling Cell in the department.
- Student can interact with the teachers/scientist in universities or research organization whenever they needed and there is an open option for the students to get the membership in the professional societies but up to till now, there is not even a single departmental society due to financial and administrative constraints.
- Realizing the need for exploring job opportunities for the university graduates, Directorate of Placement Bureau has been established.

CRITERION 5: PROCESS CONTROL

Criterion 5: Process Control

It includes student admission, students' registration, faculty recruitment activities, which are dealt by various statutory bodies and the university administration.

Standard 5.1: Program Admission Criteria

- The process of admission is well established and is followed under the relevant rules and criteria set by HEC. For this purpose an advertisement is published in the National News Papers by the Registrar Office.
- Admission criteria for B.Sc. (Hons.) Agri. are F.Sc. (pre medical)/(pre engineering) with minimum of second division and entry test.
- Admission criteria are revised every year before the announcement of admissions.

Standard 5.2: Process of Registration

- The student's name, after completion of the admission process, is forwarded to the Registrar Office for proper registration in the specific program and the registration number is issued to the student.
- After the 4th semester students are allotted different majors (e.g. Agricultural Extension, Plant Breeding and Genetics etc.) by the Dean Faculty of Crop and Food Sciences on the basis of their merit priority.
- Students are evaluated through Mid, Final and Practical exams and through Assignments.
- Registration is done for one time for each degree but evaluation is done through the result of each semester. Only those students, who fulfill the criteria of the University, are promoted to the next semester.
- In general, the students are registered on competition bases keeping in view the academic and research standards.

Standard 5.3: Recruiting Process for Faculty

Recruitment policy followed by the University is the same as recommended by the HEC. Induction of all posts is done as per rule:

- Vacant and newly created positions are advertised in the national newspapers, applications are received by the Registrar office, scrutinized by the scrutiny committee, and call letters are issued to

the short-listed candidates on the basis of experience, qualification, publications and other qualities/activities as set by the University authority.

- The candidates are interviewed by the University Selection Board and Principal and alternate candidates are selected.
- Selection of candidates is approved by the Syndicate for issuing orders to join within a specified period.
- Induction of new candidates depends upon the number of approved vacancies. Standard set by HEC are followed.
- At present, no procedure exists for retaining highly qualified faculty members. However, the revised pay scales structure is quite attractive.
- HEC also supports appointment of highly qualified members as foreign faculty Professors, National Professors and deposes them in concerned departments of the University (Unfortunately, we are lacking to avail this facility or so called blessing from HEC).

Standard 5.4: Teaching and Delivery of Course Material

- To provide high quality teaching, department periodically revises the curriculum in view of field requirements, innovations and new technology.
- With the emergence of new fields, new courses are introduced, and included in the curriculum.
- Students usually buy cheap Asian editions of technology books. These are also available in the University library, where documentation, copying and internet facilities are available.
- Notes are also prepared by the teachers and given to the students.
- Most of the lectures are supplemented by overhead projectors, charts, slides, and pictures.
- All efforts are being made that the courses and knowledge imparted meet the objectives and outcomes. The progress is regularly reviewed in the staff meetings.

Standard 5.5: Completion of Program Requirements

- The controller of examinations announces the date regarding commencement of examination. After each semester, the controller office notifies results of the students. The evaluation procedure consists of quizzes, mid and final examinations, practicals, assignments and reports, oral and technical presentations. The minimum pass marks for each course is 40% for undergraduate and Master degree and 50 % for Ph.D. in theory and practical, separately.
- In theory, weightage to each component of examination is as prescribed here under:

Mid Examination 30%

Assignments 10%

Final Examination 60%

- Grade points are as follows

Marks obtained	Grade	Grade point	Remarks
80-100 %	A	4	Excellent
65-79 %	B	3	Good
50-64 %	C	2	Satisfactory
40-49 %	D	1	Pass
Below 40 %	F	0	Fail

- Gold medals are awarded to the students who secure highest marks. Degrees are awarded to the students on the annual convocation that is held every year.

CRITERION 6: FACULTY

Criterion 6: FACULTY

Standard 6.1: Full Time Faculty

TABLE 9. FACULTY DISTRIBUTION BY PROGRAM AREAS IN AGRICULTURAL EXTENSION

Program area of specialization	Courses in the area and average number of sections per year	Number of faculty members in each area	Number of faculty with Ph.D. degree
Communication skills	02	02	00
Extension Education	02	02	00
Diffusion/Technology Transfer	02	02	00
Monitoring and Evaluation	01	02	00
Total	07	08	00

Standard 6.2: Effective Programs for Faculty Development

- Professional training and availability of adequate research and academic facilities are provided to the faculty members according to the available resources.
- Currently no one is doing Ph. D or gone abroad.
- Existing facilities include mainly internet access, which is available through local area network. In addition library facility with sometime latest books is also available.

Standard 6.3: Faculty member motivation

- The young faculty is mobilized by timely back up and appreciation by the senior faculty members. Avenues for research funding are provided through university research fund.

Faculty survey

Results of faculty survey were summarized and are given in figures on the next coming pages.

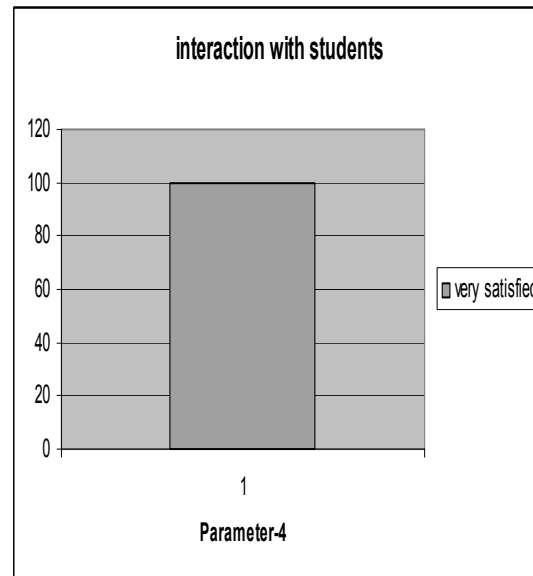
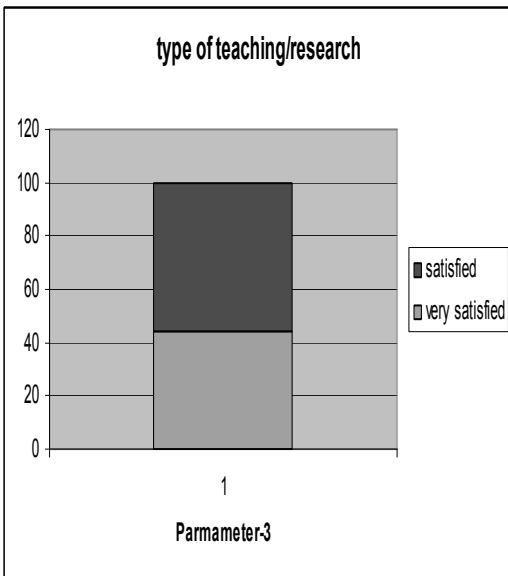
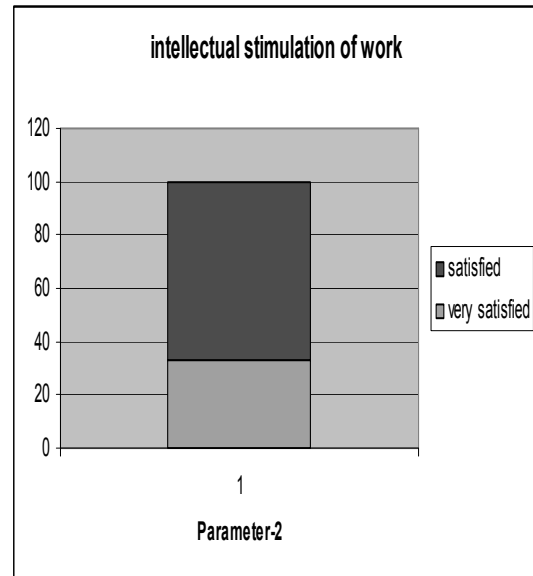
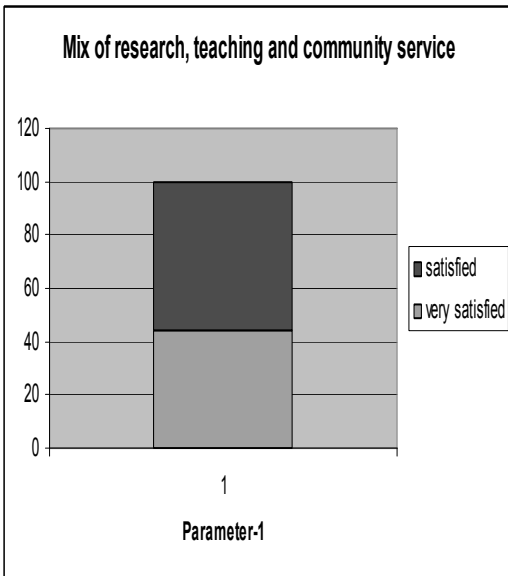
Results of Faculty Survey

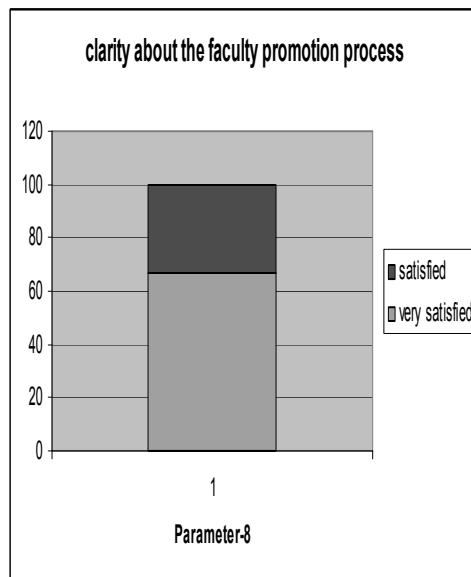
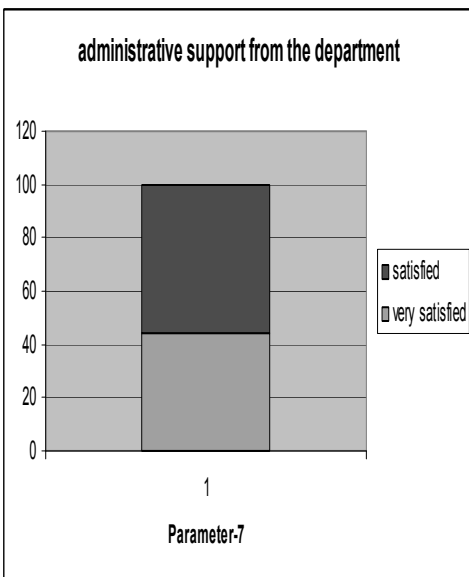
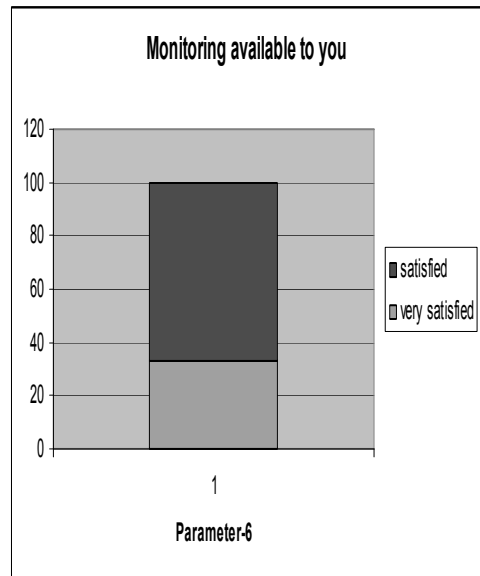
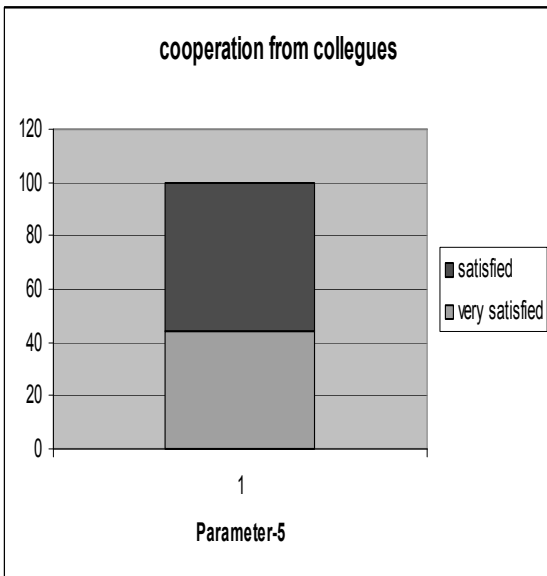
The results of the faculty survey are summarized as follows:

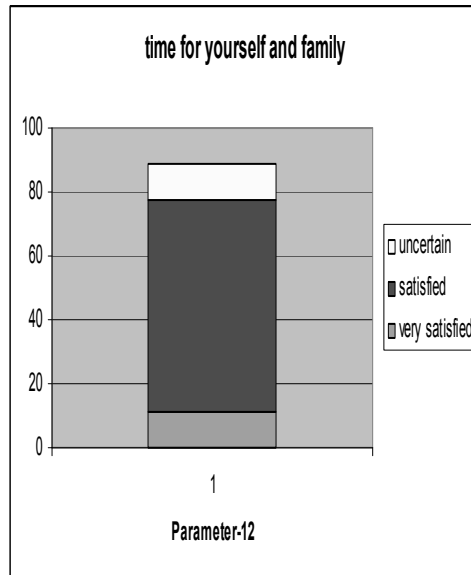
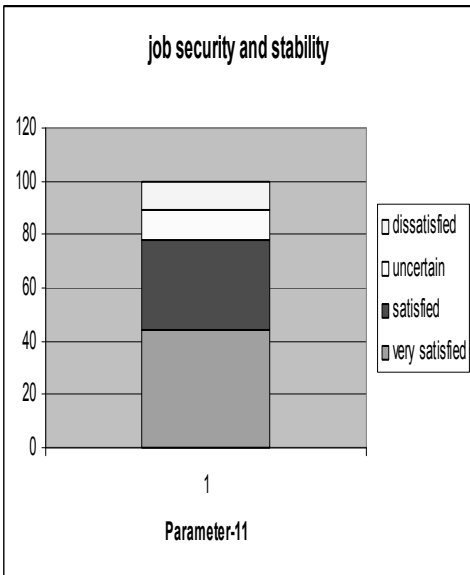
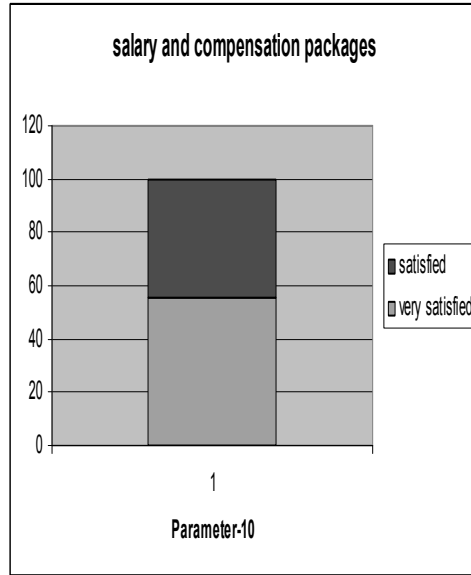
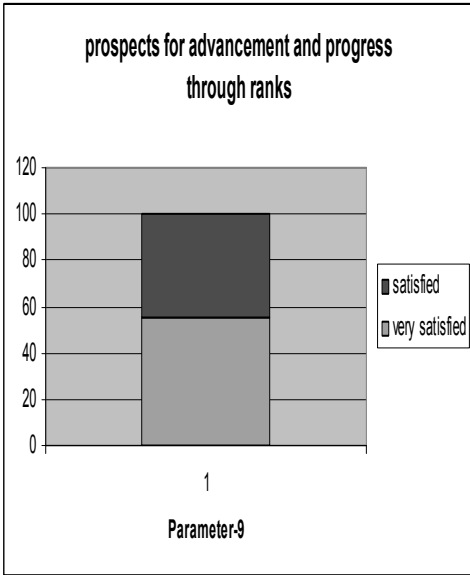
S #	Parameter	Mr. Arshad Ali	Mr. Muhammad Ali
1	Your mix of research, teaching and community service	B	A
2	The intellectual stimulation of your work	B	A
3	Type of teaching/research you currently do.	A	A
4	Your interaction with students	A	A
5	Cooperation you received from colleagues	B	B
6	The mentoring available to you	B	B
7	Administrative support from the department	B	B
8	Providing clarity about the faculty promotion process	B	A
9	Your prospects for advancement and progress through ranks	A	A
10	Salary and compensation packages	A	B
11	Job security and stability at the department	A	A
12	Amount of time you have for yourself and family	B	B
13	The overall climate at the department	A	B
14	Whether the department is utilizing your experience and knowledge	A	A
15	what are the best programs/ factor currently available in your department that enhance your motivation and job satisfaction.	Cooperative attitude of staff and the students	-
16	suggest programs/factors that could improves your motivation and job satisfaction	Further facilitation in provision of research/practical facilities as well as space	Co-operation, positive attitude, interaction

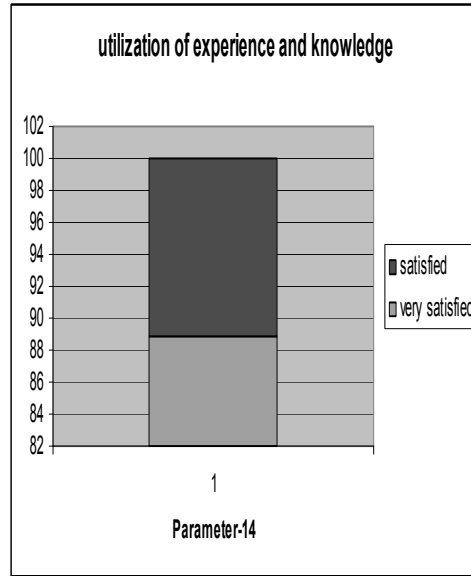
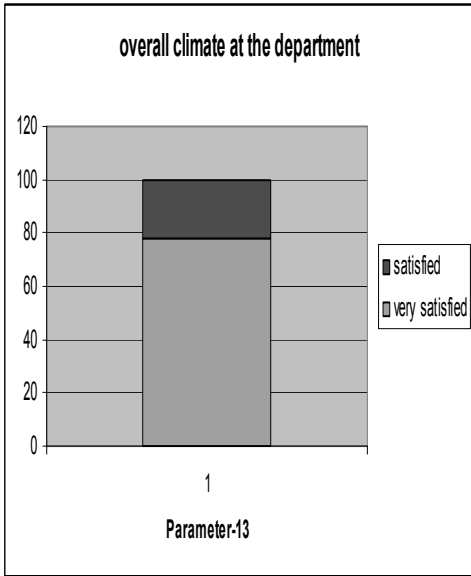
A: very satisfied B: Satisfied C: Uncertain D: Dissatisfied E: Very dissatisfied

FACULTY SURVEY









Survey of graduating students

The graduating students in last semester were surveyed as per Proforma 3 before the award of degree. The results of graduating students were summarized and given and shown in graph shown on next coming pages.

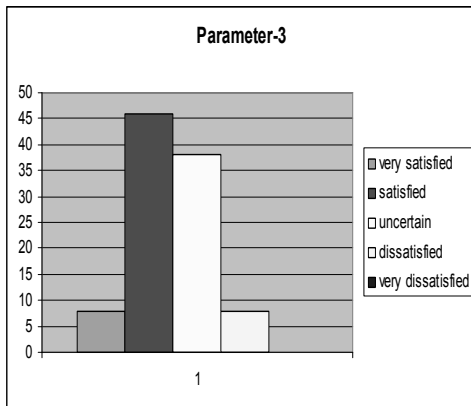
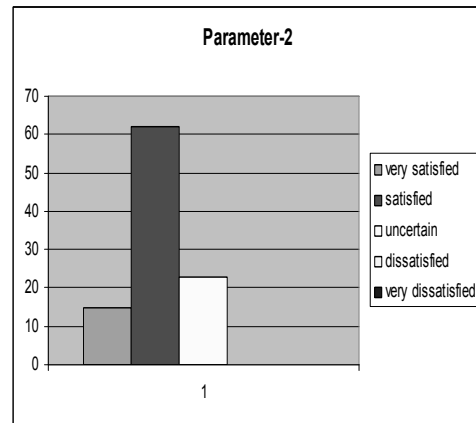
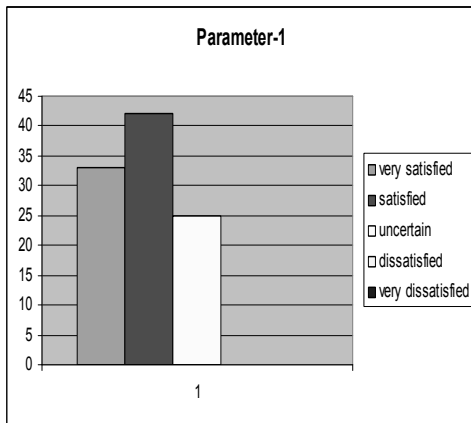
RESULTS OF GRADUATING STUDENTS SURVEY

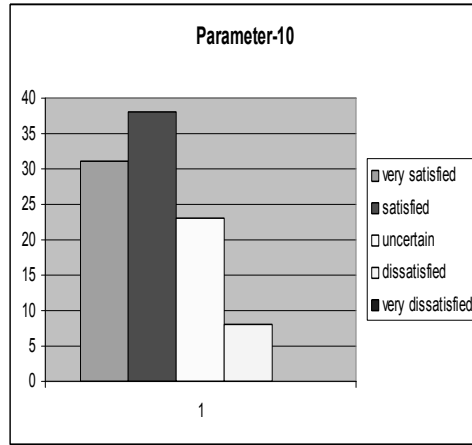
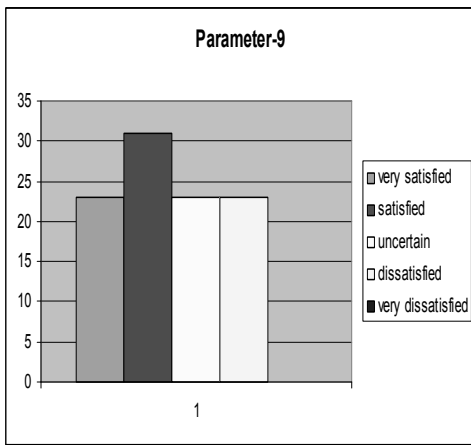
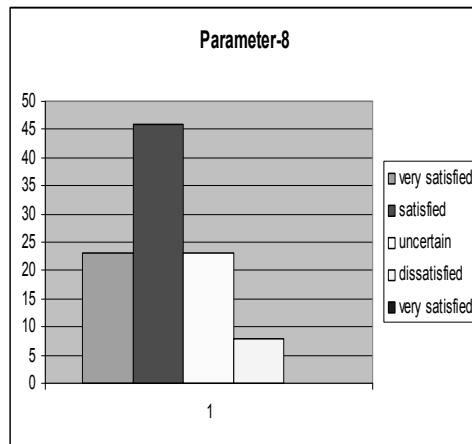
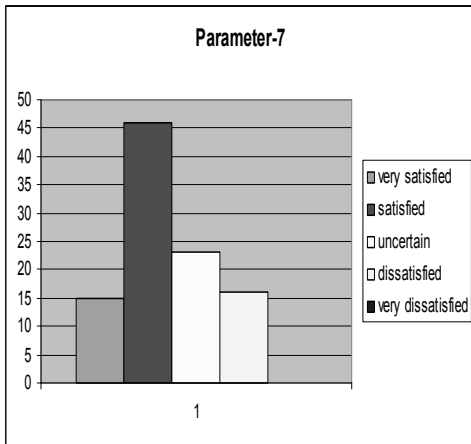
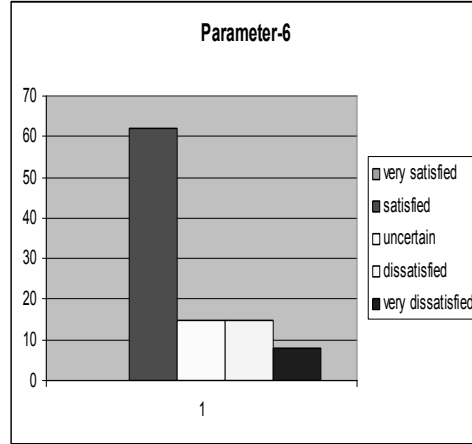
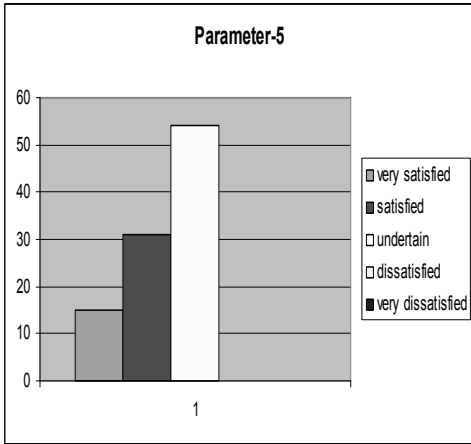
Sr. No	Parameter	Very satisfied (%)	Satisfied (%)	Uncertain (%)	Dissatisfied (%)	Very dissatisfied (%)
1	The work in the program is too heavy and induces a lot of pressure	34	43	23	0	0
2	The program is effective in enhancing team working abilities	18	61	21	0	0
3	The program administration is effective in supporting learning	8	46	38	8	0
4	The program is effective in developing analytical and problem solving skills	23	61	8	8	0
5	The program is effective in developing independent thinking	15	31	54	0	0
6	The program is effective in developing written communication skills	0	62	15	15	8
7	The program is effective in developing planning abilities	15	46	23	16	0
8	The objectives of the program have fully achieved	23	46	23	8	0
9	Whether the contents of curriculum are advanced and meet program objectives	23	31	23	23	0
10	Faculty was able to meet the program objectives	31	38	23	8	0
11	The environment was conducive for learning	23	46	16	15	0
12	Whether the infrastructure of the department was good	33	33	25	9	0
13	Whether the program comprised of co-curricular and extra-curricular activities	15	47	30	0	8
14	Whether scholarships were available to students in case of hardship	15	62	15	8	0

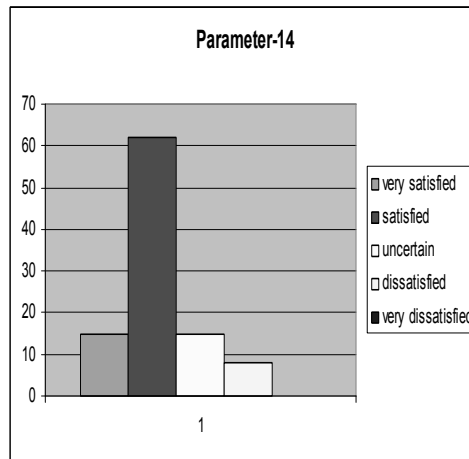
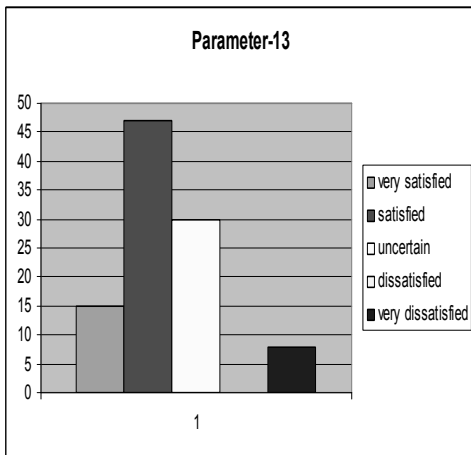
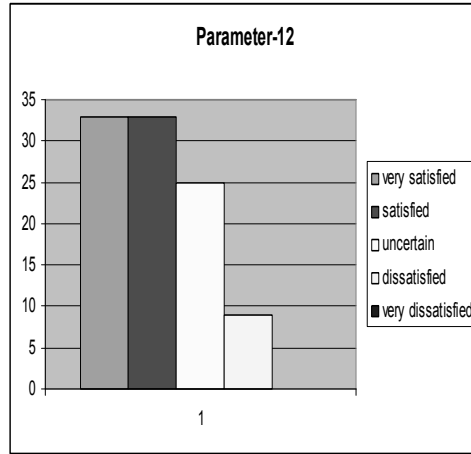
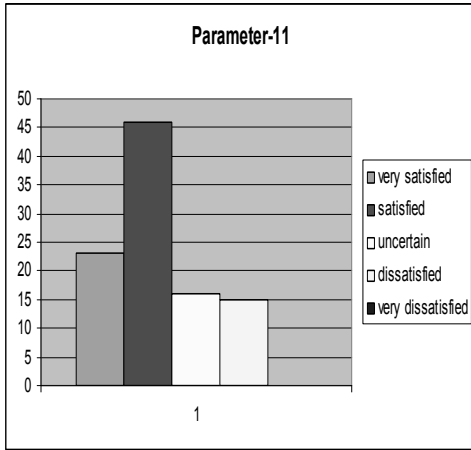
Answer question 9 if applicable
The internship experience is effective in enhancing

a	Ability to work in teams	63	37	0	0	0
b	Independent thinking	27	55	18	0	0
c	Appreciation of ethical values	20	60	20	8	0
d	Professional development	8	54	23	15	0
e	Time management skills	40	40	20	0	0
f	Judgment	50	40	10	0	0
g	Discipline	33	45	22	0	0
h	The link between theory and practice	30	40	20	10	0

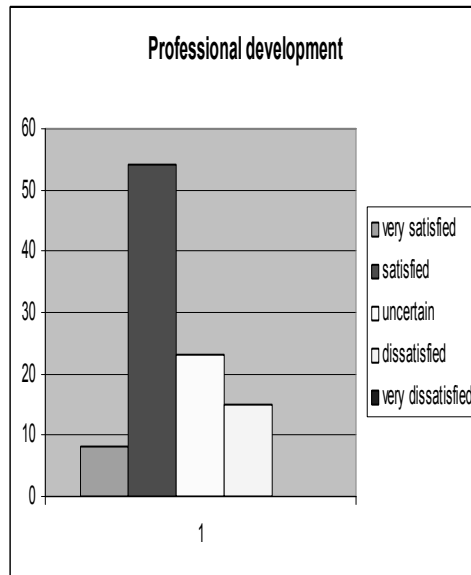
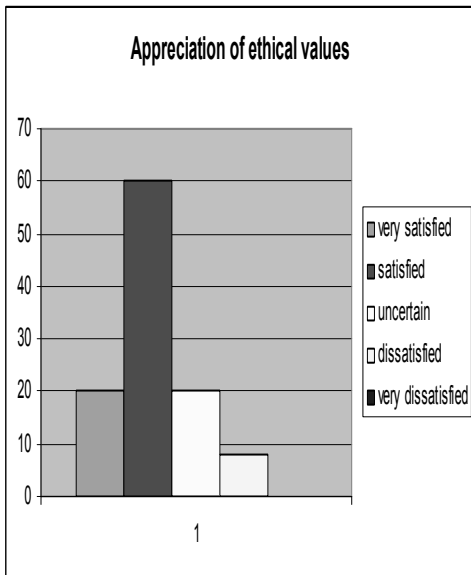
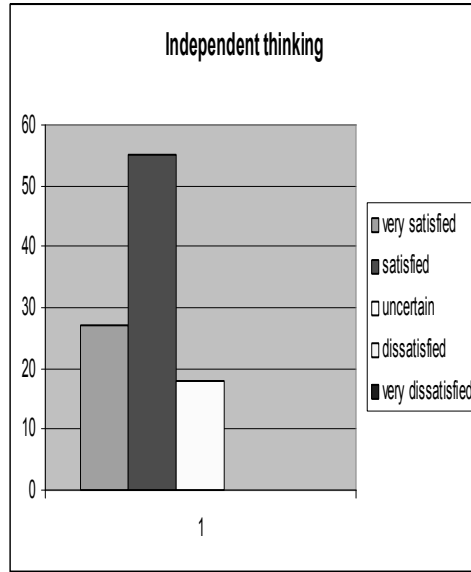
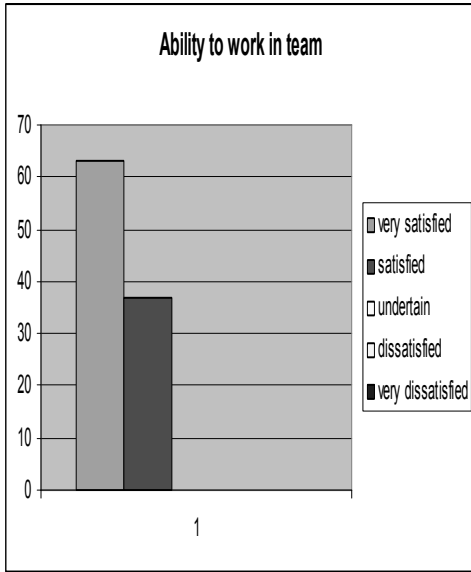
GRADUATING STUDENTS SURVEY

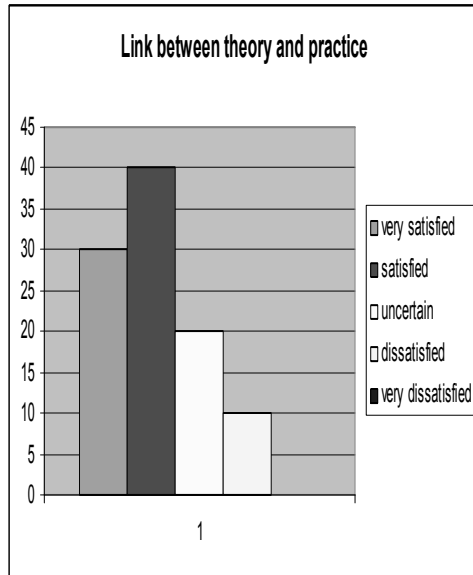
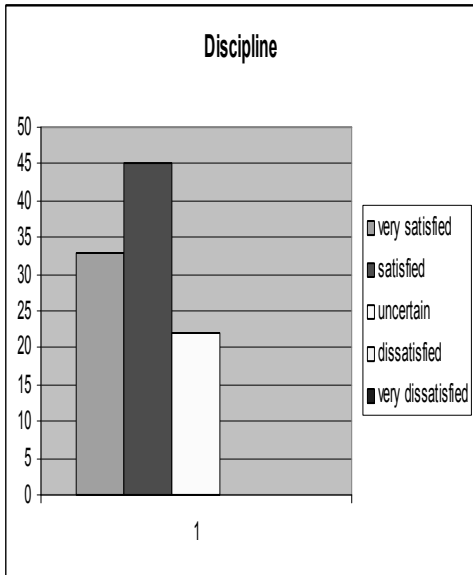
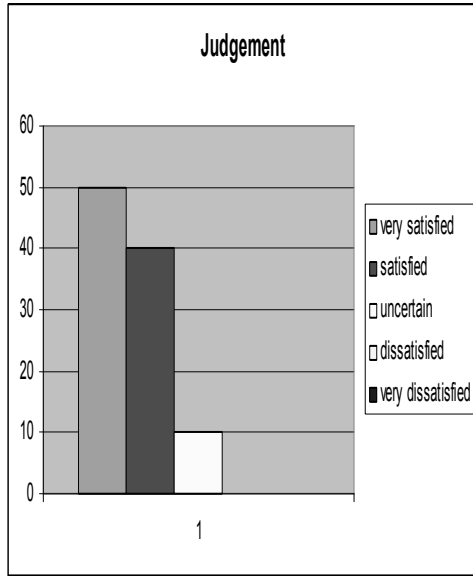
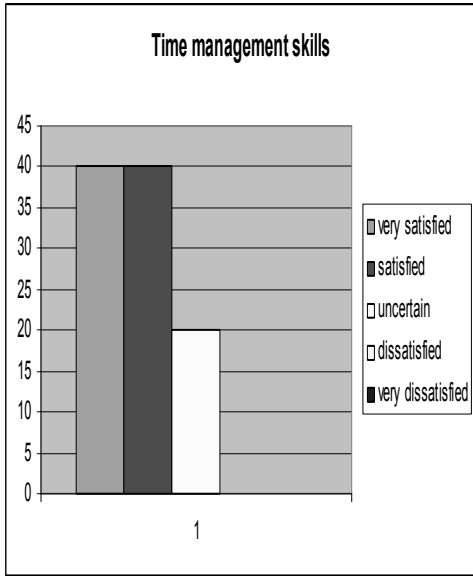






RELATIONSHIPS BETWEEN CURRICULUM CONTENTS AND PROGRAMME OBJECTIVES





CRITERION 7: INSTITUTIONAL FACILITIES

Criterion 7: Institutional Facilities

Standard 7-1: Infrastructure

The faculty has access to E-library which is very helpful for the high quality education and producing research of international standards. They also have access to the internet. However the department has the following shortcomings/problems:

- Majority of the faculty members do not have access to the PCs. Computers are not provided by the university. Only one computer is available which is being utilized for official purposes, downloading material from internet and mainly for A. V. aid lab.
- The internet services provided by the university are poor. The speed of internet is slow and often internet does not work.
- Break of power intermittently, due to which research and academic work both are suffered.
- Latest and modern projected and non-projected aids or equipments or apparatus are lacking.
- Untrained supporting staff.
- Faculties lack practical knowledge of modern extension aids.
- Scanty budget for consumables.
- Some of Fans and tube lights are out of order and are not properly and timely repaired.

Standard 7-2: Library Facilities

The University Central Library has very limited number of books, journals and periodicals (exclusively related to agric. extension). It's a small library in term of space and facilities with no catalogue systems. It does not meet the standards of a University Library.

Standard 7.3: Class Room and Faculty Offices

Currently the only class room is not enough and the space is not only limited but also some basic facilities are lacking. Multimedia is not available for the lecture hall. This affects the quality of teaching and training. It is worth mentioning that even no proper furniture is available for faculty members and students.

CRITERION 8: INSTITUTIONAL SUPPORT

Criterion 8: Institutional Support

The university administration has been struggling hard to strengthen all the departments and up gradation of departments and establishing new faculties and Institutes. The university is also trying to attract highly qualified faculty.

Standard 8-1: Support and Financial Resources

- At present department is having chicken feed to regulate the department. Furthermore, since last two years department has not received even a single penny from the university which consequently, leading department to depravity in terms of motivation, morale, zeal, commitment, determination and other psychological disorders. As luckily, we have got separate identity in terms of separate class room and two offices for faculty members. It would be important to draw attention that we do not have rooms for departmental personnel where they can fulfill their duties easily and could maintain departmental records. A ray of hope we have got from authorities in terms of financial aid. There is a dire need for fixing particular budget to streamline the department. Gradually, university should increase the financial resources which will be allocated to the department to establish a departmental library and computer facilities. We are hoping to receive funding during this fiscal year. Suggestions and factors that can contribute to the motivation of the faculty are given as follows:
 - Research grants for young faculty member(s) ought to be allocated.
 - Trainings should be arranged in abroad to train the faculty members.

Standard 8-2: High Quality Graduate Students and Research Scholars

We are longing to start M. Sc. and Ph. D programmes to facilitate the students who get B. Sc. Degrees in Agric. Extension but unfortunately they can not continue due to unavailability of higher education facility. Therefore, it is high time that we started M. Sc. and Ph. D degrees to lead our country towards highway of success, prosperity and development generally and agriculture sector exclusively. We cannot turn the face regarding facts prevailing in the country regarding manpower in this respective field. We are deficient in Extension specialists which is alarming and leading the region in many menaces. In rest of the departments, these programmes have been offered every year.

Standard 8-3: Financial Resources

Notwithstanding of pitfall, we can never forget, our esteemed chairman who is also Dean helped us a lot whatever he could do he did. He always encourages every faculty member to adhere with splendid high morale in spite of declining professional passion. In fact, we need financial help to purchase books for the departmental library and other necessary items. Similarly, we need aid to maintain our Audio-visual aid lab where only two to three aids are available. No doubt, we do not need scientific instruments like, bottles, costly acids and other material. We need only projected and non-projected aids for practical purposes and to enhance and broaden the professional horizons of our rising students. Proper recording system is not exception to all, it is the dire need of the time. In a nutshell, we highly request to authorities to help us in getting rid of these long standing hurdles and problems.

SUMMARY, SUGGESTIONS AND CONCLUSION

SUMMARY, SUGGESTIONS AND CONCLUSION

The self assessment report of the Department of Agricultural Extension , Pir Mehr Ali Shah Arid Agriculture University, Rawalpindi, presents historical and chronological developments since 1979 when Barani Agriculture College was initiated. With its limited and meager role from supporting under-graduate courses of college to University level in 1994, a full fledged department of Agricultural Extension was established in 2003. Since then, the discipline has progressed remarkably and made significant contribution in several aspects mainly, the diagnose of field problems, curricula development, research methodology and human resource development. The department now provides a variety of programmes such as Effective Communication skills, Extension Programme development, Agricultural Technology transfer and has produced eminent scientists, Extension workers who work in various organizations, Agricultural Extension departments, Banks, Non-governmental Organizations (NGOs) and Rural Support Programmes (RSPs).

Since the discipline deals with technology transfer and various agriculture related campaigns, which are significant, its mission is to impart quality education, introduce novel and innovative techniques and conduct research so that effects of poverty are alleviated and enhancement of crops yield. For this purpose, five specific objectives were sought which are measurable and achievable on the basis of universally accepted SMART technique which stands for (S=Specific, M=Measureable, A=Achievable, R=Realistic and T=Time bond). These were analyzed thoroughly in accordance with the criteria set by Higher Education Commission. The program mission objectives and outcomes are assessed and strategic plans are presented to achieve the desired goals, which are again measurable through definite standards. Programme outcomes appeared to be satisfactory. Teachers' evaluation revealed satisfactory standards, the score of two teachers of the department ranged from 3.47 to 4.66, with an average of 4.2. Students' evaluation score ranged between 3.06 and 4.28 with a mean of 3.79 points in 0-5 scale. Alumni surveys revealed variable results with regards to knowledge, interpersonal skills, conflict and other management and leadership skill. Weaknesses were identified which are related to space, laboratories and equipment and many improvements have been suggested. Employer survey indicated that the graduates fall above average and their abilities were rated above 80%.

Curriculum design, development and organization are based upon set, well defined and approved criteria. Pre-requisites are fully observed, examinations are conducted as per schedules and academic schemes are fully prepared in advance. The number of courses, along with their titles and credit hours for each semester, course contents for degree programme is fully planned. Their efficacy was measured through different standards and it was found to range between satisfactory to highly satisfactory.

The facilities and shortcomings in the Audio-Visual laboratory are discussed. It was concluded that proper laboratory and computer facilities are needed to further strengthen the discipline on scientific lines. Proper steps are taken to guide the students for programme requirements, Inter and Group communication, meetings, Group discussions, tutorial system, study tours, and exposure visits, students-teacher interaction etc. They are well informed of relevant scientific societies, job opportunities and other such activities. Some improvements have been suggested.

As regards the process control covering admission, registration, recruiting policy, courses and delivery of material, academic requirements, performance and grading, university as well as Higher Education Commission have set forth proper rules, which are properly followed. At present there are two faculty members and almost both are well qualified in their fields.

However, faculty members need motivation for advanced knowledge and research. Faculty survey results were variable but still satisfactory. Internship experience was highly effective and useful with 70% satisfactory results. Institutional facilities were measured through Criterion 3; infrastructure, library, class room and faculty offices and in each case, short comings and limitation are highlighted. Institutional facilities need to be strengthened. Accordingly, institutional support will greatly promote and strengthen academic, research, management and leadership capabilities.

Cutting it short, performance of the department may be further improved considering the following points.

1. Class rooms need improvement to help developing conducive and congenial environment for student's learning. Proper lightening, aeration, provision of multimedia and sound systems can improve quality of learning and teaching as well.
2. Laboratory needs rehabilitation and new equipments. Besides there is need for repair of the old assets so that the graduate students may carry out their research in the form of group discussion without any difficulty.
3. There is dire need for refresher courses for the newly appointed teacher (s) pertaining to teaching methodology, educational psychology, research and developments and monitoring and evaluation of students. The HEC may be requested to arrange such sort of trainings.
4. There is dire need to improve level of cooperation among the faculty members and students for better repercussions.
5. Faculty members have pointed out that salaries, perks and privileges, and compensation be improved for more satisfactory job performance.
6. There is also need to improve mix of research and teaching proportion to produce professionally sound graduates.
7. At present there are no arrangements for professional and behavioral training of the supporting staff. Such trainings will improve their abilities for enhancing the quality of research and teaching. It would be worthy to mention here that proper man at proper place is not being practiced.
8. The survey has also pointed out shortage of personal computers and slow speed of Internet which creates many impediments. Improvement in this area will also speed up the level of research and teaching.
9. The budget allocated to the department hardly meets the requirements for the purchase of A. V. Aids and other items required for smooth running of the department.
10. The survey has revealed that several courses need up gradation and more emphasis on practical work is required.
11. At present there is no departmental library. Allocation of sufficient funds for this purpose will be helpful in subscribing reputed journals and purchase of books that will ultimately boost quality of learning, teaching and research.
12. The survey results have also revealed that faculty members are also in need of Professional degrees in the form of Ph. Ds and foreign trainings which will enable them to carryout various new programmes like M. Sc. (Hons.) degree and many other short courses for Farming community and other strata of the country. The HEC may be requested to arrange short term foreign trainings for improving skills and broadening vision of the fresh and senior faculty members.

Program Team Members

Prof. Dr Muhammad Munir (Coordinator)

Mr. Arshad Ali (Member)

Mr. Muhammad Ali (Member)

ANNEXURE

ANNEXURE VI: DETAILED COURSE CONTENTS OF SCHEME OF STUDIES AGRICULTURAL EXTENSION AND EDUCATION

AEE 402 Introduction to Agricultural Extension Education 3(3-0)

THEORY

Agricultural Extension its definition, objectives and importance. Brief history/recent trends in Agricultural Extension. Organizational set-up in Pakistan. Role of private sector in Agricultural Development. Characteristics of Pakistani farmers. Farming problems and solutions thereof. Roles and duties of extension workers at various organizational levels. Principles of effective extension work.. Communication process and its components. Barriers to effective communication. The adoption and diffusions of agricultural innovations. Motivation techniques. Laws of adult learning. Rural youth and women in agricultural development: Extension, research and farmers linkages. Concept of evaluation in Agricultural Extension.

BOOKS RECOMMENDED:

1. Adams, M. E. 1988. Agricultural Extension in Developing Countries. Longman, Burnt Mill, Harlow, Essex, UK
2. Blackburn, D. J. 1989. Foundations and Changing Practices in Extension, University of Guelph, Guelph, Ontario, Canada.
3. Memon, R. A. and E. Bashir, (eds.) 1993 Extension Methods. National Book Foundation, Islamabad.
4. Van den Ban, A. W. and H. S. Hawkins, 1989. Agricultural Extension. Longman Scientific & Technical, Co-published in United States with John Wiley & Sons, Inc. New York.

THEORY

Purpose, concept, scope and significance of programme development.. Assumptions, characteristics and principles. Programme development models. Steps in programme development: Situation analysis, needs assessment, statement of objectives, plan of work. Planning, implementing, monitoring and evaluating programmes. Participation of stakeholders in Extension programme development.

PRACTICAL

The students will conduct situation analysis and needs assessment. They will plan extension programmes based on prioritized needs of extension clientele. They are required to submit a written report thereon.

BOOKS RECOMMENDED:

1. Swanson, B. E. et al 1997. Improving Agricultural Extension: A Reference Manual, FAO Rome.
2. Boyle, P. G. 1981. Planning Better Programs. McGraw-Hill Book Company, New York.
3. Beg, M. A. K.; S. M. Anwar and M. Azim.1980. Basic Needs and Rural Development 2 Volumes: Pakistan Academy for Rural Development, Peshawar.
4. Assifi, N.M. and James H. French, Guidelines for Planning Communication Support for Development, UNDP.
5. Khan, A.H. 1986. Rural Development in Pakistan Vanguard Bookes Ltd. 8-Davis Road, Lahore.
6. Kretzman. J. & McKnight. J. 1993. Building Communities from the Inside out: A path toward finding and mobilizing Community Assets. ACTA Publication Chicago. ILL.
7. Bennett, C. & Rockwell, K. 1994. Targeting Outcomes of Programmes. An Integrated Approach to Planning and Evaluation.

AEE 503 History and Philosophy of Agricultural Extension 3(3-0)
Education

THEORY

Historical perspective of Agricultural extension education in Pakistan. The past performance of various extension programmes, systems and models practiced in Pakistan. The emergence of private sector extension in Pakistan. Philosophy, its definition and branches. Philosophical foundation of agricultural extension education. Islamic bases and foundations of agricultural enterprises. Islamic philosophy of extension education. Creating awareness of quality assurance in the global perspective with special reference to WTO in trade liberalization and globalization. Decentralized extension; its strength and weaknesses.

PRACTICAL

BOOKS RECOMMENDED:

1. Adams, M. E. 1988. Agricultural Extension in Developing Countries, Longman Singapur Publishing Private, Ltd, Singapur.
2. Hussain, M. 1993. Agricultural Extension in Islamic Cultural Millieu, Islamabad: National Science Council.
3. Hussain, M. 1993. Agricultural Extension in Perspective. Lahore: Islamic Education Congress, 7-Friends Colony, Multan Road, Lahore.
4. Agricultural Extension - The Next Step. PRS No.13, World Bank, Washington DC, 1990.
5. Ornstein, A. C. & Levine, D. E. 1994. Foundations of Education, Houghton Mifflin Company.
6. Blackburn, D. J. 1989. Foundations and Changing Practices in Extension. Guelph, Ontario, Canada: University of Guelph.

THEORY

Concept, philosophy, importance and objectives of rural development. Main approaches/programmes of rural development in Pakistan i.e. V-AID, Basic democracies, rural works programme, IRDP, social action programme, participatory rural development projects, community based organizations. Current rural development programmes: rural support programmes and rural development programmes of various NGOs, Farmer Field School (FFS) etc. A critical analysis of govt. plans and policies for rural development. Main features of a suitable strategy for rural development in Pakistan. Future trends of rural development in Pakistan.

PRACTICAL

Each student will be assigned a project related to an important aspect of rural development. After completing the project each student will write and submit a comprehensive report on the given problem.

BOOKS RECOMMENDED:

1. Siddiqui A. Jameel 1980. A review of rural development programme - Pakistan. Deptt. of Agri. Economics, NWFP Agri University, Peshawar.
2. Khan A.H. 1985. Rural Development in Pakistan, Awami Press, Lahore.
3. Chambers R. 1993. Rural Development - Putting the Last First - John Wiley, New York.
4. Baig M.A.K. et al 1986, Int. Conference on Challenge of Rural Development in the Eighties. Pakistan Academy for Rural Development, Pakistan.
5. Burkey, S. 1993. People First: A Guide to Self-reliant Participatory Rural Development. Zed Books Ltd., London.
6. Hasan, I. 1989. Integrated Rural Development. New Delhi, India. Sterling Publishers Private Limited.
7. Katz, E. 1998. Towards Community Owned Extension. I.B.L. Lindau. Switzerland.
8. Narasaiah, M.L. 2003. Approaches to Rural Development. Discovery Publishing House New Delhi (India).

THEORY

Meanings, philosophy, and objectives of rural youth work. Characteristics, needs, and problems of rural youth in Pakistan. Participation of rural youth and women in agricultural development programmes. A review of important youth organizations in Pakistan. Critical analysis of the past and present youth organizations in Pakistan. Guidelines for organizing a youth programme. Selection of projects for the youth clubs, participation of rural schools in dissemination of agricultural information. Role of women in agricultural extension in Pakistan and other selected countries. Socio-cultural constraints in involving women in Agricultural Extension activities in Pakistan.

PRACTICAL

The students will be assigned projects for youth development in the given situation.

BOOKS RECOMMENDED:

1. Adams, M.E. 1988, Agricultural Extension in Developing Countries, Longman Singapur Publishing Private, Ltd, Singapur.
4. Swanson, B.E. 1984. Agricultural Extension: A Reference Manual, F.A.O. Rome.
5. Agricultural Extension - UNDP, New York (1991).
6. Global Consultation on Agricultural Extension, FAO, Dec. 1989, Rome Italy.
7. Government of the Punjab, 1988, Rural Youth.
8. Prawl, W., R. Medlin and J. Gross. 1984. Adult and Continuing Education through the Cooperative Extension Service. Columbia, Missouri. University of Missouri.
9. Waghmare, S. K. 1989. Teaching Extension Education. Metropolitan, New Delhi, India.

THEORY

Concept, purpose and scope of communication in Agri. Extension. Factors affecting communication fidelity. Types of communication i.e. written, verbal, and non-verbal. communication skills: Speaking, listening, writing and reading.

Speaking --- Face-to-face communication. Preparing and delivering a speech, Conducting discussions and interviews i.e. probing, counseling, appraisal, focus group interview, job interview. Conducting extension meetings. Improving facilitation skills.

Listening --- Reasons of poor listening. Tips for improving listening skills.

Writing --- Art of good writing. Writing for newspapers and magazines. Writing letters reports and articles frequently required for the job of an extension worker.

Reading ---- Reasons of poor reading; Tips for developing effective reading skills.

Extension education methods and audio visual aids.

PRACTICAL

Micro-teaching --- Students will plan and practice extension teaching in small groups. They will maintain a practical notebook regarding preparation of instructional designs.

Interviewing --- Students will interview farmers and extension workers to identify the problems.

Writing Skills --- Students will complete various entries of registers i.e. stock register, store book, etc. and will prepare different type of reports required for the job of extension worker.

BOOKS RECOMMENDED:

1. Calvert, P. (Ed.) 1990. The Communicator's Handbook: Techniques and Technology. Maupin House, Gainesville, U.S.A.
2. Rogers, E. M. and F. F. Shoemaker. (1971). Communication of innovations. A cross-cultural approach. Free Press, New York.
3. Murphy, H. A., Hidelbrandt, H. P. and J. P. Thomas. 2000. Effective Business Communication. International Series. NBF, Islamabad.

Characteristics of formal, informal and non-formal education. Teaching as a process of facilitating learning, preparing an instructional design for extension teaching. Planning, conducting and making follow up of various extension methods. Individual, group and mass contact methods. Participatory extension methods. Computer application in Agri. Extension (Cyber Extension).

PRACTICAL

Each student will plan an instructional design for a given extension teaching situation. He/She will be involved in micro teaching concerning agricultural extension work.

BOOKS RECOMMENDED:

1. Swanson, B.E. et al 1997. Improving Agricultural Extension; A reference Manual, FAO, Rome.
2. Memon, R.A. and E. Bashir (Ed) 1993, Extension Methods, National Book Foundation, Islamabad.
3. Swanson 1984. Agri. Ext: A Reference Manual, FAO, Rome.
4. Adams M.E. 1982. Agri Extension in Developing Countries, Longman, UK.
5. Kelsey, H.D. & C.C. Hearne. 1963. Cooperative Extension Work, Ithaca, New York.
6. Sharma, S.R. 1998. Extension Education. Omsons Publications, New Delhi, India.

THEORY

Concept of Administration and Supervision vs. Administration Functions of an Extension supervision: personnel management i.e. recruitment. Selection, placement, training, counseling, Guidance, transfer, and promotion etc. Development and financing ext. programs, Relationship of supervision to administration. Criteria for effective supervision. Types of supervision. Basic principles applicable to extension for effective supervision. Appraisal and improvement of administrative and supervisory activities.

BOOKS RECOMMENDED:

1. Broad Well, M.M. 1990. The New Supervisor, 4th ed. Addison Wesley Publishing Co. Inc. New York: USA.
2. Kirpatrick, T.O. 1987. Supervision; A situational Approach, Kent Publishing Company. Boston: USA
3. Maunder, A.H. 1984. Agriculture Extension. A reference Manual F.A.O. Rome.

THEORY

Learning, adult learning, levels of learning, principles of adult learning, active learners vs. passive learners, farmers as adult learners. Domain of learning: cognitive. Affective and psychomotor domains. Implications of physical, mental emotional and social aspects for cognitive and psychomotor learning. Psychology and its applications in adult learning. Personality types and their effect on learning and human relationship. Information processing model. Sensory input. Pattern recognition and its theories. Motivation, issue of motivation, drive, incentive, balance or equilibrium. Theories of attention and motivation. Decision making principles of decision making. Educating farmers regarding problem solving and decision making. Evaluation of learners achievements. Continuing education, distance education, life long education, interaction of formal and non formal education.

BOOKS RECOMMENDED:

1. Bee, L.H. 1987, The Journey of Adulthood, Mechmillan, New York:
2. Morgan. C.T. and A.K Richard 1980. Introduction to Psychology. McGraw Hill Book Co., New York
3. Read, S.K. 1982. Cognition: Theory and Practice. Wadsworth, Inc. Selmont, California, USA.
4. Robinson, R.D. 1979, An Introduction to Helping Adults Learn and Change, Omnobook, Wisconsin, U.S.A.
5. Wade, C and C. Tarris. 1998. Psychology (6th ed). Longman. New York
6. Grew, R.g. 1997. Psycolgy: An Introduction. Longman. New York.
7. Rashid, M.1999. Non-Formal Education. National Book Foundation, Islamabad.

THEORY

Concept, purpose, and scope of communication in agricultural extension. Communication Process: elements of communication process and their role in effective communication. Principles of communication. Communication models: linear models, circular models and convergence models. Forms of communication: interpersonal, intra-personal and impersonal. Written, verbal and non-verbal communication. Improving communication skills: writing, reading speaking and listening. Verbal message principles. Types of non-verbal expression and their role in making communication effective. Condition for communication success. Barriers to communication and measures to overcome these barriers. Group communication: factors affecting group communication. Preliminaries to public communication. Principles of public communication. Mass communication. Journalism ethic in journalism, barriers to journalism and use of journalism in agricultural extension.

PRACTICAL

Studies will be involved in developing extension messages to each other through alternative communication forms. They will be required to critically analyze each message delivery.

BOOKS RECOMMENDED:

1. Calvert, P. (ed). 1990. *The Communicator's Handbook: Techniques and Technology*. Gainesville. USA.
2. Merrill, J.e., J. Lee, and E.J. Friedlander, 1994. *Modern Mass Media* (2nd ed). Harper Collins College Publishers, New York.
3. Rosengren, K.E. 2000. *Communication: an Introduction*. Stage Publications, London.
4. Deviato, J.A. 1997. *Human Communication: the basic course* (7th ed). Longman, inc., New York.
5. Memon, R.A., and E. Bashir. 1993. *Extension Methods*. National Book Foundation, Islamabad.
6. Shahid, M.I. 1996. *Mass Communication*, Carvan Enterprises, Lahore, Pakistan.

THEORY

Concept and significance of using Audio-Visual Aids in Agricultural Extension education. Principles underlying the successful use of audio-visual aids. Strategies for using variety of A.V. aids for extension work. Types of Audio-Visual aids their selection, preparation, use and maintenance.

1. None-Projected Aids i.e. Maps. Graphics posters, cartoon, comics three dimensional aids etc.
2. Projected aids; i.e. film strips, Motion Pictures. Slides transparencies etc.
3. Electronic Media. i.e. Radio, Television, Audio & Visual cassettes, computers E-mails etc.

PRACTICAL

1. Students will prepare and present non-projected aids in the class.
2. Careful handling of projected aids, equipment & maintenance thereof.
3. Recording techniques.

BOOKS RECOMMENDED:

1. Barden, R & M. Hacker. 1990. Communication Technology. Delmar Publishing inc. New York: USA
2. Cable, R. 1970. Audio-Visual Hand Book. University of London Press Ltd.
3. Calvert, P. 1990. The Communicator's Hand Book, Gainesville, Maupin House, Florida: USA.

THEORY

Concept of Human Resource Management (HRM). Job design and analyses; personnel recruitment; selection; training and development; compensation and performance evaluation. Administration, management, leadership, supervision, authority, role, staffing, communication, conflict, control, motivation, negotiation, consultation and participation. Management theories. Organization Behavior Analyses, Dimensions of human behavior. Behavior style patterns. Process of behavior modification. Group meetings, group behavior. Group conflict and management. Strategic management. Effective leadership styles.

PRACTICAL

The students will be required to analyse their own management style in class situation.

BOOKS RECOMMENDED:

1. Adams, M.E. 1982 Agricultural Extension in Developing countries. Longman. Burnt Mill, Harlow, Essex, UK.
2. Blackburn, D.J. 1989. Foundations and Changing Practices in Extension. University of Guelph Canada.
3. Clarc, R.C. (1977). Basic Concepts and Theories of Administration and Supervision. (3rd ed.) . university of Wisconsin., Madison, Wisconsin.
4. Myers, I.B. (1987) introduction to type. A description of the theory and applications of the Myres – Briggs type indicators. Consulting psychologists press. Palo alto, California.
5. Swanson, B.e. 1984 agricultural Extension: a Reference Manual. F.A.O. Rome, Italy.
6. Dessler G. 2004. Human Resource Management. Prentice-Hall of India, New Delhi.
7. Joshi R. and S. K. Gupta. 2002. Human Resource Management. Kalyani Publishers, New Dehli.
8. Cascio, W. F. 1998. Human Resource Management. McGraw Hill International Edition. NBF, Islamabad.
9. Hellrigel, D. 2004 Organization Behavior 10 Ed. Thomson.
10. Robbins, S.P. 2000 Organization Behavior: Concepts **Controversies**, Applications Don Mills, Ontario, Canada: Pearson Education Canada

THEORY

Definition and importance of Technology Transfer. Characteristics of Promising Agricultural technology. Business considerations of a farm enterprise, and its technological aspects. Preparing feasibility reports of alternative farm enterprises. Choosing. Planning, and managing a selected enterprise. Recent technological developments in agriculture. Characteristics of technology generation, transfer, and utilization sub-systems in Pakistan with special reference to agricultural development.

PRACTICAL

Students will be required to undergo practical training aspects of various technologies learnt in theory classes.

BOOKS RECOMMENDED:

1. F.A.O. 1995. The Group Enterprise Resource Book. F.A.O. Rome, Italy.
2. Lionberger, H.F. and P.H. Gwin, 1991. Technology Transfer: From Researchers to User. University of Missouri, USA.
3. Wilson, K and G.E.B. Morren, Jr. 1990. Systems Approaches for improvement in Agriculture and Resource Management.
4. Zarii Digest - Various issues.

THEORY

Definition of evaluation. Types of evaluation. Formative evaluation, summative evaluation, and meta evaluation. Similarities and differences in extension evaluation and extension research. History, present status and future scope of extension evaluation. Alternative paradigms of research and evaluation. Quantitative Vs. qualitative evaluation. Evaluation objects and standards. Object description. Selecting questions and criteria to be addressed. Determining the type and the sources of data to be collected for an evaluation study. Sampling techniques. Information collection procedures. Data collection instruments, pre-testing of instruments. Testing reliability and validity of the instruments. Practical problems in data collection, data analysis and interpretation. Writing evaluation report.

PRACTICAL

Each student will select an extension programme for evaluation. He will plan and conduct an evaluation and submit the evaluation report to be concerned teacher.

BOOKS RECOMMENDED:

1. Cernea, M.M. and B.J Tepping 1977. A system for monitoring and Evaluation of Agricultural Extension Projects. The World Bank, Washington, D.C.
2. IRRI. 1990. Performance Objectives Manual. Los Banos, Laguna, Philippines.
3. Patton, M.Q. 1982. Practical Evaluation. Sage Publications, London, U.K:
4. Patton, M.Q. 1990. Qualitative Evaluation and Research Methods. Sage Publication. London. U.K.
5. Swanson, B.E. et.al.] 997. Improving Agricultural Extension. F.A.O. Rome, Italy.
6. Worthen, B.R. and J.R. Sanders. 1987. Educational Evaluation. Longman inc. New York.

THEORY

Need of research in agricultural extension education. Type of research. Planning Research; selecting a research problem, outlining a research plan, conducting pilot study; Data collection and analysis techniques. Writing the research report.

PRACTICAL

Students will plan and conduct research on assigned problem on limited scale (village level) and submit written research report.

BOOKS RECOMMENDED:

1. Borg. W.R. and M.D. Gall. 1991. Educational Research: An Introduction New York. Longman.
2. Leedy. P.D.1989. Practical Research: planning and design. New York: Macmillan.
3. Malik, W. 1990. A Systems. Paradigm: A study of Agricultural Knowledge System in Pakistan. Islamabad: Leo Books
4. Pattan, M.Q. 1990. Qualitative Evaluation and Research Methods London: Sage Publications.

THEORY

Importance of writing as means of communication in professional and scientific fields. Differences between scientific and general audience writing. Alternative requirements and formats of synopsis, thesis, technical articles and research papers. Introduction to American Psychological Association (APA) and Council of Biological Editors (CBE) style manuals.

PRACTICAL

Every student will be required to write technical articles/reports on given topics and present in the class. Moreover, they will critically evaluate and edit reports prepared by other students and present it.

BOOKS RECOMMENDED:

1. Hashmi, N., 1989, Style Manual of Technical Writing. Pakistan Economic Analysis Net Work Project. Ministry of Food, Agriculture and Cooperative Govt. of Pakistan, Islamabad.
2. Kate, L.T. 1973, A Manual for Writers of Term Papers, Thesis and Dissertations (Fourth Ed), The University of Chicago Press, Chicago and London.
3. APA. 2001. Publication manual of the American Psychological Association (Fifth Edition). APA, USA.
4. CBE. _____. Scientific style and format: The CBE Manual for authors, editors and publishers. 6th edition. CBE, USA.

PRACTICAL

The students will be attached singly or in groups with the field staff of the Department of Agriculture (Extension), nation building departments (NBDs), non-governmental organizations (NGOs), etc. In addition the students will pay study visits to various agricultural research stations and extension projects in the province/country with special reference to the following:

1. Field crop production and protection
2. Farm machinery/workshops (tractors, threshers, etc.)
3. Livestock and poultry management
4. Farm forestry
5. Seed farms etc.
6. Fish farming
7. Fruit and Vegetable production, preservation, processing (packages industry, cold storage, etc) and protection
8. Manures/chemical fertilizers
9. Soil reclamation and conservation (SCARP) projects
10. Water management/Irrigation department
11. Maintenance of official records.
12. Agriculture credit, business and marketing
13. Cooperatives
14. Rural support programmes/NGOs etc.

Every student will write a comprehensive report based on his/her field experiences, according to the following guidelines:

1. Introduction
2. Objectives of apprenticeship training programme
3. Daily activity report
4. Extension activities undertaken during training
5. Future plans for extension work in the area
6. Problems faced by field staff (host institutes/department), farmers and internee
7. Relationship of agricultural extension service with other nation building departments, agencies and stakeholders.
8. Suggestions for improvement of internship programme.
9. Suggestions for the improvement of agricultural extension service.

Books Recommended:

1. Manuals of Agriculture (Extension Services), published by the US AID Washington, D. C., USA.
2. Swanson B. E. et al (1997), Improving agricultural extension methods, A reference Manual, FAO Rome.



Faculty Resume

Name	Mr. Arshad Ali
Personal	Village Mirza Wali, P/O Kanjrur, Tehsil ShakarGarh, District Narowal 0300-7766281
Experience	4-12-2004 to date Lecturer, PMAS-AAU,RWP 26-012000-4-12-2004 Farm Manager, PMAS-AAU,RWP 10-01-1995-25-01-2000, Agri. Officer (Ext), Agriculture department 14-05-1992-09-01-1995, Lecturer, PMAS-AAU,RWP
Honor and Awards	
Memberships	
Graduate students Post docs Undergraduate Students Honor Students	
Service Activity	
Brief Statement of Research Interest	Adoption of diffusions
Publications	02
Research Grants and Contracts	
Other Research or Creative Accomplishments	
Selected Professional Presentations	

Faculty Resume



Name	<u>Muhammad Ali</u>
Personal	Department of Agricultural Extension Education, PMAS-Arid Agriculture University, Rawalpindi 0333-6560689
Experience	16-01-08 to date, Lecturer, PMAS- AAU,RWP 23-08-2005-29-01-2007, Customer Services Officer, Khushhali Bank
Honor and Awards	XIV th star award 2003 Best Annual Snowfall Hiker and Trekker, 2002 President Rovers Scout. (PRS, Biggest award in Roving in Pakistan) 2003 Higher Education Commission (HEC) awarded Scientific Talent Scheme scholarship (9 th Batch) 2004-2005
Memberships	Member, Pakistan Association of Agricultural Social Scientists (PAASS). Punjab Boy Scout Association, Punjab. Agricultural Extension Society (AES). University of Agriculture, Faisalabad
Graduate students Post docs Undergraduate Students Honor Students	
Service Activity	
Brief Statement of Research Interest	Evaluation and monitoring of different Extension programmes
Publications	01
Research Grants and Contracts	
Other Research or Creative Accomplishments	
Selected Professional Presentations	

THE END