

THE FIRST INTERNSHIP PROGRAM ORGANIZED BY THE STATISTICS DIVISION IN THE HISTORY OF PAKISTAN

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The educational system in Pakistan is pre-dominantly textbook-oriented, and as far as the Master of Science (MSc) level programs in Statistics are concerned, by and large, connections with the government or industry are not cultivated. In view of the importance of exposing Masters-level students to professional settings, the Department of Statistics at Kinnaird College for Women, Lahore approached the Statistics Division, Government of Pakistan requesting an Internship Program for the very first batch of the MSc Statistics students at Kinnaird College. This paper presents the salient features of the program which exposed students to three largest data-collecting organizations of the country, i.e., the Federal Bureau of Statistics, the Agriculture Census Organization, and the Population Census Organization. Feedback received from the students as well as from the Statistics Division testifies to the usefulness and significance of the Program, the very first of its kind in the history of Pakistan.

METHODOLOGY USED TO LAUNCH THE INTERNSHIP PROGRAM

Innovative initiatives require enthusiasm, drive and a considerable amount of hard work on the part of a group of individuals; clearly, it is much easier for governments, organizations and institutions to maintain the status quo. There are always a few individuals, however, who are open to new ideas, and who possess the courage and grit to implement the same. One of the key factors in getting a new idea implemented in a large organizational setup may be to obtain access to one such individual who is logically convinced about the usefulness of the proposed initiative and, at the same time, is in a position to get the proposal implemented.

The author had been looking for such an opportunity since the commencement of the MSc Program at Kinnaird in September 2003, and was delighted when the idea of an internship program for the students of Kinnaird College presented by her to the Deputy Director General (DDG) of the Government of Pakistan's Statistics Division during a conference in February 2004 received a very supportive and favorable response! The author began the formal correspondence for the internship with a letter addressed to the DDG in April 2004, and, following a series of letters, reminders and telephone conversations, Kinnaird College received the schedule of a four-week Internship Program to be organized by the Statistics Division, Government of Pakistan for the first batch of MSc Statistics students of Kinnaird College during July 2004.

As far as the students of MSc Statistics were concerned, the author had already ensured their full-fledged commitment by obtaining from each one of them an undertaking to the effect that she would attend the Internship Program regularly for its entire duration, and carry out the various tasks assigned to her with dedication and full responsibility.

FORMAT OF THE INTERNSHIP PROGRAM

The Training Wing

The Statistics Division of the Government of Pakistan encompasses the three largest data-collecting organizations of the country, i.e., the Federal Bureau of Statistics, the Agriculture Census Organization, and the Population Census Organization. The Internship Program was organized under the auspices of the Training Wing of the Federal Bureau of Statistics which is responsible for organizing and conducting training courses periodically for the statistical personnel of various levels working in the Statistics Division and its attached departments as well as other federal and provincial governmental statistical organizations and cells. One of the functions of the Training Wing, as quoted in their annual brochure, is to "promote cooperation with other departments, universities, and national and international agencies for the sharing of knowledge and the promotion of statistical education."

The Training Wing is headed by a Principal who is assisted by a Vice Principal, a Senior Instructor and an Instructor along with twenty-two supporting staff members. In spite of the fact

that it is a small establishment, the Training Wing regularly conducts a variety of training courses for federal and provincial statistical departments and autonomous bodies that are regularly nominating their employees for training.

Components of the Internship Program

As requested by the author on behalf of the Department of Statistics at Kinnaird College, the Internship Program organized by the Training Wing consisted of the following three components.

Component	Organization	No. of Days
1.	Agriculture Census Organization (ACO)	9 working days
2.	Federal Bureau of Statistics (FBS)	9 working days
3.	Population Census Organization (PCO)	6 working days
	TOTAL	24 working days (four weeks)

The four-week long internship commenced on Monday, July 4, 2004, and was successfully completed on Saturday, July 30, 2004. Each of the three components consisted of classroom lectures, field operation and data processing exercises.

Academic Content of the Program

Following persistent efforts on the part of the author to motivate each of the three participating organizations to chalk out a comprehensive plan for the Internship Program, the ACO, FBS and PCO came up with detailed outlines of that which would be covered during their respective components. Broadly speaking, the students were to be imparted training pertaining to (a) the statistical system of Pakistan, and (b) the various steps involved in the conduct of censuses/surveys as well as the collection, compilation and processing of data. In particular, the students would be trained regarding the conduct of the Farm Machinery Census by the ACO, Price Collection by the FBS, and the conduct of the Population Census by the PCO.

Field Trips

Evidently, an internship in a data-collecting organization could not be considered complete without the students being exposed to the real process of data collection. As such, each of the three components of the Internship Program contained at least one field trip in which the field-workers and officers of the respective organization guided the students regarding the manner in which data is collected from the citizenry. Keeping in view the parents' concern regarding their daughters' safety and security during interaction with common people outside the protected environments of their homes or their college, the author and other faculty members of the Kinnaird College Statistics Department went with the girls on the field trips! The field trips turned out to be enriching and horizon-widening experiences not only for the students but also for the faculty (in spite of the physical strain involved) due to the fact that neither of them had ever had exposure to such training before!

Procedure for Evaluation and Assessment

At the beginning of the Internship Program, a request had been put in by the author to the Training Wing that, if possible, a written examination be held at the end of each component of the program, and proper marking be carried out for purposes of assessment. Also, an Evaluation Form was handed over by the author to the Training Wing for preparing evaluation reports based on the comments received from the authorities of each of the three participating organizations regarding the students' performance in the Internship Program.

Thanks to the dedicated efforts of the teams of officers and staff of the ACO, FBS and PCO, an examination was conducted (and the examination papers marked) at the end of each of the three components of the Internship Program. Also, the authorities of the three organizations filled out the Evaluation Form for each of the participating students, and delivered the same to the highest authorities of the Training Wing for compilation of overall evaluation reports.

Once the evaluation forms and the results of the examinations conducted by the three organizations were in, the authorities of the Training Wing came up with an overall remark as well as an overall mark for each student by developing a formula for combining the results of the three organizations in an appropriate manner.

STUDENTS' PERFORMANCE

Examination Results

It was indeed a matter of great pride and satisfaction for the author and the other faculty members of the Kinnaird College Statistics Department that their students did very well in the three examinations organized by the ACO, FBS and PCO at the end of the respective components of the Internship Program. In order to obtain an overall result for each student, a formula was devised by the authorities of the Training Wing, in collaboration with the author, and, applying this formula, the students' overall scores ranged from 75.5% to 90.8%.

Comments Received from the ACO, FBS and PCO Regarding Students' Performance

As indicated earlier, an Evaluation Form had been handed over to the Training Wing for receiving comments from the authorities of each of the three participating organizations regarding the students' performance in the Internship Program. To the great satisfaction of the author and her colleagues, comments received from the three organizations were very encouraging, and testified to the commitment, dedication and hard work of Kinnaird's MSc students.

Table 1 shows the Examination Results of the students as well as the comments received from the ACO / FBS / PCO regarding the students' performance in the Internship Program.

STATISTICS TUTORIAL AND CERTIFICATE AWARDING CEREMONY

In order to celebrate the successful accomplishment of the first-ever Internship Program organized by the Statistics Division of the Government of Pakistan for the MSc Statistics students of Kinnaird College, the author and her colleagues organized a Statistics Tutorial and Certificate Awarding Ceremony at Kinnaird on Tuesday, 27th September, 2004. The two-hour long program included verbal presentations by three of the students who participated in the Internship Program, a presentation by the author covering the various initiatives taken by the Department of Statistics at Kinnaird College for the improvement of statistical education in Pakistan during the past two decades, speeches by the Principal and Vice Principal of the Training Wing of the Federal Bureau of Statistics that had organized the Internship Program, and an address by the Secretary of the Statistics Division who traveled from Islamabad and participated in the program as Chief Guest.

In addition to the multimedia presentations by the students and the author, the program contained an exhibition of posters that were displayed all around the hall and depicted theoretical concepts of statistics as well as small-scale statistical studies carried out by undergraduate students, thus adding a lot of color to the program!

In addition to faculty members and students of Kinnaird College, the program was attended by the officers and staff members of the ACO, FBS and PCO who had contributed to the Internship Program. The program came to a climax when, subsequent to the presentations and speeches, certificates were awarded to the students who had successfully completed the Internship Program followed by a certificate of appreciation for every one of the officers and staff of the ACO, FBS and PCO who had played a role in the successful accomplishment of the Internship Program.

The examination results of the students along with feedback received from the authorities of the ACO, FBS and PCO regarding the students' performance are summarized in Table 1.

Table 1: Students' Performance in the Internship Program

Student No.	Marks Obtained in the ACO Component of the Internship Program 30%	Marks Obtained in the FBS Component of the Internship Program 30%	Marks Obtained in the PCO Component of the Internship Program 20%	Marks Obtained for General Performance in the Internship Program 20%	Total Marks 100%	Position in Order of Merit	Overall Comments
1.	20.4	25.8	19.6	19.0	84.8	3 rd	Excellent / Brilliant Student; Hard -Working / Energetic
2.	27.3	24.3	19.2	20.0	90.8	1 st	Hard - Working / Energetic; Excellent
3.	19.5	22.8	19.2	14.0	75.5	—	Competent, but did not attend field trip; Performed well.
4.	21.3	22.5	18.8	17.0	79.6	—	Hard - Working and Energetic
5.	21.0	25.8	18.8	18.0	83.6	—	Hard - Working / Excellent Student
6.	21.3	23.7	18.8	18.0	81.8	—	Hard - Working; Relevant questions in the class
7.	25.8	23.1	18.4	18.0	85.3	2 nd	Hard – Working / Very Good Student
8.	23.4	23.4	18.0	17.5	82.3	—	Hard – Working / Energetic & Excellent Student
9.	25.8	22.2	17.6	18.0	83.6	—	Hard – Working / Dedicated / Energetic

FEEDBACK FROM STUDENTS

All nine of the students participating in the Internship Program were directed to submit reports of the various components of the internship to the Chairperson of the Kinnaird College Statistics Department indicating their experiences at the three organizations in terms of theoretical information, practical training and overall knowledge. Comments received from the students indicated that they found the internship a very informative, enriching and horizon-widening experience! They were able to learn a lot about the practical application of statistics, and they became aware of the problems involved in the collection and compilation of real-life data.

The following are comments received from the students:

“We had a wonderful experience. It gave us a lot of exposure in the practical field. For the first time, we learnt the importance of the practical application of statistics. We are really privileged to be ‘The First Batch in Pakistan’ from our field to benefit from this extremely informative program.”

“From this internship we learned:

- Public dealing
- Close encounter with people from different walks of life
- Exposure to different markets and the inner city of Lahore
- Exposure to rural areas”

“Through this internship:

- We realized the importance of the governmental statistical departments.
- We practically experienced the problems faced by the departments during different phases of their work.
- We learned how important all these census reports are for the government to run the country.
- We learned how many difficulties the people working in the field have to face to produce the results of the census.”

“This training has been very useful for us in the sense that we were able to see how these people in the government organizations work for the sake of the nation. People working in these departments are very dedicated to their work, and are working very hard.”

“All in all, it was a wonderful experience full of knowledge, exposure and fun. We are grateful to all those people who were involved in this program.”

FIVE-YEAR PLAN FOR SIMILAR INTERNSHIP PROGRAMS FROM 2006 TO 2010

Shortly after the Statistics Tutorial and Certificate Awarding Ceremony, the author formulated a Proposal for an Ongoing Program of Internships to be organized by the Statistics Division for the MSc Statistics students of Kinnaird College during the next five years, and sent the same to the Secretary of the Statistics Division who had participated in the Tutorial as Chief Guest. The letter to the Secretary highlighted the contributions of the Kinnaird College Statistics Department for the uplift and enhancement of statistical education in Pakistan, and expressed the confidence that the resources allocated by the Statistics Division for the Internship Program would act as a sound investment in terms of human resource development for the progress and development of the country.

It was a matter of great satisfaction and contentment for the author when the proposal sent by her received a very positive and favorable response, and culminated in an Agreement between Kinnaird College for Women, Lahore and the Statistics Division, Government of Pakistan! According to the terms and conditions of the Agreement made on the 27th day of October, 2004, the Statistics Division would organize a four-to-six-week-long internship program for the MSc Statistics and BSc Statistics Major students of Kinnaird College every year in winter from 2006 to 2010, the internship program being conducted in the Lahore offices of the Federal

Bureau of Statistics, the Agriculture Census Organization, and the Population Census Organization.

CONCLUDING REMARKS

In a textbook-oriented educational system afflicted with major problems such as a mechanical style of teaching on the part of the teachers, and passive acceptance of information on the part of the students, it is very easy to adopt the attitude of lethargy and helplessness, and to maintain the status quo! The other approach is to take the initiative, and to make efforts for educational activities and programs that are imaginative, innovative, and creative! In a stereotypical societal environment in which, by and large, academicians of different disciplines work in isolation from each other (let alone establish linkages with government and industry), and organizations are too involved in their routine tasks, being able to get an innovative idea implemented and seeing it through to a successful conclusion is indeed a matter of real satisfaction and fulfillment. What is more important, however, is the ability of the new initiative to break conceptual barriers and to act as the harbinger of a series of application-oriented projects and programs for the benefit of students in particular and humanity in general.