

# Teaching Civic Welfare Training Service in the School of Statistics

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Civic Welfare Training Service (CWTS) is one of the three program components of the National Service Training Program (NSTP) established under Republic Act 9163. CWTS covers programs or activities that will add improvement to the common wellbeing for members of the community or its facilities. It aims to instill among the students: citizenship, volunteerism, and career exploration and development. All students of the University of the Philippines need to complete two semesters of CWTS as a requirement for graduation if the student selected this as his or her choice of NSTP component.

The teacher has to inculcate to the students that, being scholars of the country, they have to volunteer their service not only to the people but also to the country. This is to show appreciation for the people's support for their quality tertiary education. Thus, there is integration of civic and social values in the course. What makes teaching CWTS challenging and exciting is that the teacher incorporates statistics in the volunteer work that the students will do. Hence, the teacher prepares the students to do statistical work needed by the public and makes them aware of the different paths they can take in their respective careers.

## CWTS in the School of Statistics

Each college in the University of the Philippines has a free hand in the implementation of a selected program component of NSTP as long as it follows its program concept. The three program components are Reserve Officer's Training Corps, Civic Welfare Training Service, and Literacy Training Service. The School of Statistics opted to offer CWTS for their students. Junior students take CWTS1 and CWTS2 for the first and second semesters respectively. CWTS1 is the classroom component while CWTS2 is the fieldwork or service component.

Under the curriculum of the Bachelor of Science in Statistics, the School offers CWTS1 in the first semester and has the following objectives: 1) to understand the research process; 2) to increase awareness on the ethical issues that arise in research and reach rational conclusions concerning these issues; 3) to appreciate the role of the Philippine Statistical System in the country's development; 4) to improve their proficiency in identifying the appropriate statistical analysis in answering a research problem; 5) to recognize the misuse of statistical tools in research; 6) to develop their ability to communicate with laymen conducting research, from problem formulation to interpretation of results; and 7) to hone their skills in using SAS, SPSS, and EXCEL in data processing.

On the other hand, the School offers CWTS2 in the second semester and has the following objectives: 1) to apply the things learned in CWTS1 as they help other students complete their undergraduate thesis; 2) to learn to volunteer their services to their fellow students without remuneration; 3) to participate as an effective group member and solve problems in a cooperative and collaborative manner, and 4) to discover the possible careers in research in the service of their fellowmen.

As stated in NSTP Information Kit, the goal of NSTP is the University of the Philippines (UP) is

“Serving Our People, Building Our Nation”. The University believes in the inner potential of an individual. Achievement of this is through the learning environment of the University, which promotes excellence. Likewise, the University can help direct the development of the potential beyond personal interest and benefits to a greater good for the service of the nation.

### **The Teacher’s Approach**

To achieve the objectives of CWTS1, the teacher first gives a diagnostic exam covering topics on descriptive and introductory inferential statistics. After the exam, the teacher performs an item analysis to determine topics where students need more mastery. This serves as the basis of the review on descriptive and inferential statistics. Before the review and discussion of any topic, the teacher gives a quiz to determine the knowledge/recall level of the students.

The teacher lets the students learn and understand the basic principles of the research process and its importance through presentation and discussion of papers. This includes interpretation of statistical outputs produced by softwares like SAS, SPSS, and EXCEL. The teacher gives emphasis on topics like research ethics, issues, common fallacies in data collection, presentation and analysis, statistics profession in the government, and guidelines for effective consultation. Furthermore, the teacher invites guest speakers to talk about the role of the Philippine Statistical System in the country’s development, special topics like National Accounts, and different applications of statistics in various fields.

The teacher groups the students to report on topics like volunteerism, business and social ethics, and communication skills. Each group presents the report in power point or video presentation, and skits (dramatization). This serves to train them in communicating with people especially after they graduate. The students initially evaluate and comment after each presentation giving emphasis first on the positive aspects followed by areas for improvement. The teacher then summarizes the learning and gives an overall impression.

For the students to internalize the stages of a research investigation including its ethics and issues, the teacher tasks each group of students to do a paper/case study by identifying a problem and using only secondary data. They go through the process of the different stages of the research investigation by listing down the objectives, doing a review of literature, constructing tables and charts, and analyzing the results. Each group then presents their paper to the class. The teacher evaluates every part of the paper to strengthen the skills of the students in doing statistical work.

In addition, the teacher assigns research topics on conceptual framework, sampling frame, and sample size determination to allow the students to research in the library and to search the internet. They do small group discussion before passing their research on the said topics. The assigned readings enhance their analytical and presentation skills.

To satisfy the CWTS2 objectives for the second semester, the teacher has a line up of activities such as free tutorials for college students taking Elementary Statistics, volunteer work in government agencies and private individuals, and help build homes for Gawad Kalinga Project. In preparation for the tutorials in Elementary Statistics, there is assignment of a specific topic in descriptive statistics or introductory inferential statistics to each student to demo teach. The purpose of this is for the students to have confidence in teaching in front of a class and to be able to discuss topics in a simplified manner. The teacher first presents several guidelines and tips in doing class tutorials and in communicating technical aspects to students. For every demo teaching, the students and the teacher give constructive criticisms specifically for areas of improvement.

Concerning volunteer work in government agencies, the teacher coordinated with three agencies involved in doing statistical work and these are National Statistical Coordination Board (NSCB), National Statistics Office (NSO), and Statistical Research and Training Center (SRTC). The students are to render service for at least 40 hours to expose them on the different applications of statistics; to train them on the different possible tasks in performing statistical work; and to acquaint them to a prestigious company

wherein knowledge and skills in statistics are very essential.

Before the students do their actual volunteer work with the three (3) statistical agencies, the Dean of the School of Statistics and the teacher meet with each agency to do expectation setting. The Dean informs them that students are Juniors and have taken up only Descriptive Statistics, Basic Statistical Methods, Introduction to Statistical Programming, and Statistical Softwares and Software Applications. Thus, the limitations of students are they still cannot do statistical modeling, forecasting, sampling design, and multivariate analysis.

To promote civic consciousness and volunteerism among the students, the teacher invites University students involved in Gawad Kalinga (GK) to orient the students regarding this project. GK is a housing project for the less fortunate brothers and sisters in the community. It does not only build houses for them to live but rather it provides a community where they can grow spiritually and have a source of livelihood. Student leaders of GK give talks, slide presentations, and materials to the students. After the orientation, the teacher schedules the GK activity with the students. The students help build houses by putting sand and gravel in sacks, forming human chain to transport cement, gravel, and sand from one place to the other, painting, and gardening.

### **The Student's Angle**

Students appreciate the review in descriptive statistics and introduction to inferential statistics. They take these subjects now with more enthusiasm and interest unlike when they were in their first year. The concepts they now internalize and learn its actual application in the research investigation done per group.

The group reports allow the students to be part of a team and to work as a team. The cooperation and support of each member is vital in the success of the activity. They recognize the role of the team leader and the contribution of the team members. In addition, they learn that dressing up is crucial in doing data presentations and reports.

In the demo teaching, students gain confidence and develop their skills in communication and presentation. They learn how to hold the microphone, how to use the computer projector, and slide pointer. In addition, they acquire the skills on how to have eye contact with the audience, how to get the audience's attention, and how to modulate their voice especially if they are using a sound system. The students experience actual hands-on teaching in front of the class thus opening other career opportunities for them.

Doing volunteer work in some of the government statistical agencies is a revelation for the students. They see that the working condition and facilities are beyond their expectation. There are insufficient computers and chairs and some have no decent place where they can eat. It made them realize that indeed the Philippines is still a developing country. However, despite the inadequacies of facilities, they find the employees very dedicated, professional, pleasant, and hard working. The students appreciate their efforts in teaching them statistical work and exposing them to real data.

The students gain different hands on work experience from the three statistical agencies. They search in the internet for data, definitions, and special topics. Others do programming in SAS and development of web page. Students develop and enhance statistical training notes and reports in MS Power point. They have exposure to preparation and editing of narrative reports, status reports, and press releases. In data management, they do encoding, editing, updating, matching, and sorting using MS Excel. For data analysis, they prepare statistical tables and charts, compute summary statistics, and compare indices. In addition, the students review existing definitions and reports, perform indexing and imputation.

Doing volunteer work in statistical agencies is most welcome to the students. Even though some of the tasks assigned are repetitive and tedious, they actively participated. Others have fewer tasks and found themselves just waiting for the days to end. However, they value the meeting of new people and even gaining new friends.

For Gawad Kalinga, the students get the opportunity to look at their community at a different perspective. It allows them to assess some of their previous ideas and views about their community and

themselves. Volunteering helps expand their knowledge by learning about themselves and the community. They become grateful with what they have and develop to be content with the simple things in life.

The greatest benefit the students receive from volunteering is the self-satisfaction and personal growth they acquired by taking time to give a bit of themselves to help their nation and their fellowmen.

## **Evaluation**

For evaluation purposes, the CWTS1 students retake the diagnostic exam and all the quizzes per topic at the end of the semester. The average scores are significantly higher after having the review and the application.

For CWTS2, the teacher gives an evaluation instrument on the volunteer work performed in the different statistical agencies. Majority learned new things, enjoyed the work, found the tasks assigned interesting, and the working experience worthwhile. However, most students found the total number of hours of volunteer work too long considering their heavy academic load.

The agencies' evaluation reveals that students show diligence in attending to their assigned tasks. They say that students exhibit willingness, which permit them to enhance more their skills. In addition, the students show good working relationship with the personnel and have positive attitude towards work.

On the University student evaluation for the student and the course, it shows that for both CWTS1 and CWTS2, the students demonstrate interest in learning new ideas with an average rating of 1.74. The evaluation uses a scale from 1 to 4, where 1 is the highest and 4 is the lowest. As to the method of handling the course, the students exhibit contentment with an average rating of 1.8. The students say that enrolment in the course indeed enriches their statistical knowledge and promotes civic consciousness and volunteerism. They attribute the efficiency of the course to good interaction between the student and the teacher and teacher's mastery of the subject matter.

The students suggest incorporation of more civic action activities in the course. They also recommend exposure to more research projects and the use of different statistical tools for data analysis. For CWTS2, they prefer shortening the volunteer work hours in the government statistical agencies due to their academic load.

## **Conclusion**

The teacher of CWTS should not only have the knowledge and the experience to impart statistics but should also have the integrity, moral and social values, discipline, and patriotism. CWTS instill volunteerism, discipline, sacrifice, and love of country and fellowmen. These values we inculcate in the hearts and minds of students even by doing statistical work. Linking career to statistical agencies enable the students to realize what they can do for their country in their own small ways.

## **REFERENCES (RÉFÉRENCES)**

- Republic Act No. 9163, Twelfth Congress, Congress of the Philippines, 2001.
- Constitution of the Philippines, 1976
- NSTP Information Kit, University of the Philippines, Diliman, Quezon City, 2002.

## **RÉSUMÉ (ABSTRACT)**

*Teaching and promoting civic consciousness among the youth is a challenge to the teacher especially if there is a need to link their course in doing service to the nation. The teacher needs to be resourceful in finding ways for the students to explore and develop their career in statistics and at the same time be able to volunteer their time, talent, and knowledge for the betterment of the members of the community. Civic Welfare Training Service is usually taught through group reports, training and guided practice in doing research investigation, talks on special topics, field practicum, and demo teaching. The techniques are practically sufficient in enhancing their careers and allowing them to have an active contribution to the general welfare.*