**Office of the Schools
Division Superintendent**

DIVISION ADVISORY
No. ___077___, s. 2021
August 17, 2021

In compliance with DepEd Order No. 8, s. 2013,
This Advisory is issued not for endorsement as per DO No. 28, 2001
but for the information of DepEd Officials, Personnel Staff and the concerned public
(visit https://depedelsalvadorcity.net)

VIRTUAL WORKSHOP ON RESEARCH, DATA SCIENCE, STRATEGIC PLANNING, DESIGN AND IMPLEMENTING A MONITORING AND EVALUATION SYSTEM, AND STATISTICS FOR PUBLIC HEALTH

The Strategic One Business Management and Consultancy Firm is inviting teachers, school leaders, and researchers to join **VIRTUAL WORKSHOP ON RESEARCH, DATA SCIENCE, STRATEGIC PLANNING, DESIGN AND IMPLEMENTING A MONITORING AND EVALUATION SYSTEM, AND STATISTICS FOR PUBLIC HEALTH** via zoom on the fourth quarter of 2021.

This program aims to provide training on the following: (a) how to perform time series analysis using MS Excel and other freeware; (b) how to interpret time series data; (c) how to forecast and read trends.

Participation shall be subject to the *no-disruption-of-classes policy* stipulated in DepEd Order No. 09, s. 2005 entitled Instituting Measures to *Increase Engaged Time-On-Task and Ensuring Compliance Therewith.* Attached is the letter from the organizer for your inquiries.

For information and guidance.

OLGA C. ALONSABE, PhD, CESE
Assistant Schools Division Superintendent
OIC, Office of the Schools Division Superintendent

Encl:
    As stated
Reference:
Regional Advisory No. 094, s. 2021
To be indicated in the <u>Perpetual Index</u>
    under the following subjects:
                        TRAINING PROGRAMS

SGOD/HRD/MPM

DEPARTMENT OF EDUCATION
RECORDS SECTION, REGIONAL OFFICE NO. X

RELEASED

4062

By: _____ Date: 08/12/21

Regional Advisory No. 94, s. 2021

August 12, 2021

In compliance with DepEd Order No. 8, s. 2013,
this Advisory is issued not for endorsement per DO 28, s. 2001,
but for the information of DepEd Officials,
personnel/staff, and the concerned public.
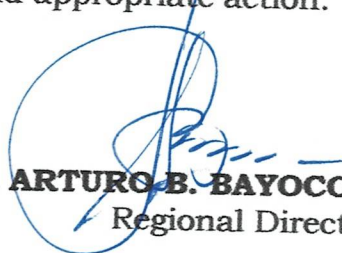(Visit deped10.com)

VIRTUAL WORKSHOP ON RESEARCH, DATA SCIENCE, STRATEGIC PLANNING, DESIGN AND IMPLEMENTING A MONITORING AND EVALUATION SYSTEM, AND STATISTICS FOR PUBLIC HEALTH

STRAT One (Strategic One Business Management and Consultancy Firm) invites educators, leaders, administrators, teachers, and researchers to the **Virtual Workshop on Research, Data Science, Strategic Planning, Design and Implementing a Monitoring and Evaluation System, and Statistics for Public Health** via zoom on the fourth quarter of 2021.

STRAT One aims to democratize analytics in the Philippines.

Attached are copies of the invitation and other documents for reference.

For information and appropriate action.

DR. ARTURO B. BAYOCOT, CESO III
Regional Director

Code: _____

/PPRD-anne

DepEd Regional Office X, Zone 1, Upper Balulang, Cagayan de Oro City
(088) 856-3932 | (088) 881-3137 | (088) 881-3031
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SOCOTEC
ISO 9001

AB

Time Series and Forecasting In-depth Seminar Workshop - August 7, 14 & 21, 2021

Course Description:

Time Series consist of values of a variable recorded in an order over a period of time. Such data arise in just about every area of science and the humanities, including econometrics and finance, engineering, medicine, genetics, sociology, environmental science. What makes time series data special is the presence of dependence between observations in a series, and the fact that usually only one observation is made at any given point in time. This means that standard statistical methods are not appropriate, and special methods for statistical analysis are needed.

This course provides an introduction to time series analysis using current methodology and software. Topics covered are: descriptive methods, plots, smoothing, differencing; the autocorrelation function, the correlogram and variogram, the periodogram; estimation and elimination of trend and seasonal components; stationary processes, modelling and forecasting with autoregressive moving average (ARMA) models; spectral analysis, the fast Fourier transform, periodogram averages and other smooth estimates of the spectrum; time-invariant linear filters; non-stationary and seasonal time series models; ARIMA processes, identification, estimation and diagnostic checking, forecasting, including extrapolation of polynomial trends, exponential smoothing, and the Box-Jenkins approach.

Objectives:

1. Learn how to perform time series analysis using MS Excel and other freewares.
2. Learn how to interpret time series data.
3. Learn to forecast and read trends.

Course Learning Outcomes

1. Demonstrate advanced understanding of the concepts of time series and their application to health, climate, finance and other areas.
2. Demonstrate familiarity with a range of examples for the different topics covered in the course.
3. Demonstrate an advanced understanding the underlying concepts in the time series and frequency domains.
4. Apply ideas to real time series data and interpret outcomes of analyses.

COURSE OUTLINE

1. Examples, objectives of analysis, notation, stationarity
2. Smoothing, linear filters, moving average smoothers. serial correlation
3. Iterated smoothing, spline smoothing, autocorrelation and trend. Removing seasonality, decomposing a series, differencing
4. The autocoviance and autocorrletions functions

5. The sample autocorrelation function
6. Statistical properties of the sample autocovariance function. Mean ergodicity. Gaussian white noise
7. Tests for serial correlation. The variogram for unequally spaced data
8. Periodicity and the periodogram
9. The cumulative periodogram
10. Stationary random processes. The general linear process
11. The backward shift operator. The moving average model
12. The autoregressive process. Causality. The Yule-Walker equations
13. ARMA processes
14. Spectral analysis and the spectrum. Wold's Theorem
15. Spectral analysis, aliasing. Convergence of the spectra
16. Spectra for ARMA processes. Processes with continuous spectra
17. ARIMA models. Identification
18. The partial autocorrelation function
19. Identification of ARIMA models. The Akaike Informatio Criterion
20. Likelihood ratio tests. SARIMA models
21. Forecasting for ARMA processes
22. Minimum mean squared error prediction
23. Forecasting with SARIMA models, diagnostics and prediction.

The speaker:

Paolo G. Hilado
Data Scientist, Educator, Consultant

- **Data Scientist**
- **Director for Research and Planning - Colegio San Agustin Bacolod**
- **Certificate in Data Science and Connectivity to Artificial Intelligence - Johns Hopkins University, Baltimore Maryland**
- **Micromasters in Data Science - University of California San Diego**
- **Post Graduate Diploma in Research and Development Management - University of the Philippines Open University, Los Baños, Laguna**
- **Masters Degree in Nursing - West Negros University**

Course Outline for Strategic Planning Workshop

The Strategic Planning In-depth Training Workshop is a foundational course for those who want to learn how to make strategic decisions realistically. This course is for managers (both public, private and academic sector) who work in every organization and face challenges daily. Managers are expected to deal with problems daily and make better strategic choices in a short amount of time. This course will teach you how to perform need analysis, problem-solving, and strategic decision-making to improve your company's value.

Participants will learn how to become an innovator, a convincing player, and a strategic decision-making champion in this Strategic Planning In-depth Training Workshop. Participants will learn how to perform a SWOT study, leverage critical possibilities for strategic opportunities, and encourage risk-taking and creativity through this course. This workshop equips participants with the skills they need to bring value to their organizations and propel their teams forward.

Learning Outcomes:

- Make well-informed strategic decisions
- Motivate and lead the team to greater preparedness and competitiveness
- Bring value to the company by applying creative analysis.
- Determine the potential plan of action by understanding the wishes and desires of your clients and stakeholders.
- Anticipate and develop plans to link strategic vision with core competencies.
- Recognize and form competitive partnerships to control others.
- Recognize the strengths and vulnerabilities of your team using strategic analysis.
- At all stages, encourage and promote taking risks and innovating.
- Improve your ability to persuade others to buy into your strategic ideas.

Course Outline

Day 1: The Strategic Planning Process: Preparation	Day 2: Getting the Process of Strategic Planning Started
- Establish the parameters for the strategic planning process. - Configure the parameters - Interested parties - How to Define the Process Parameters for Strategic Planning - Setting the Parameters for a Strategic Plan - Evaluation - Create a Committee - Committee on Strategic Planning - How Do I Form a Committee? - Creating a Committee - Evaluation Activity - Obtain operational information	- Statement of Intent - Core Capabilities - How to Write a Mission Statement - Assessment Activity: Creating a Mission Statement - Create a mission statement. - What Is a Vision Statement and How Do I Make One? - Examine both the internal and external environments. - Scan of the Environment - Internal/External Environments: How to Assess Them - Conducting a SWOT Analysis

• Real-Life Example of Gathering Operational Data • How to Collect Operational Information • Assessment Activity: Gathering Operational Data • Questions to Ponder	• SWOT Analysis: How to Do It
Day 3: Creating a Strategic Plan • Prioritize the issues that the strategic plan will address. • Make a list of your goals and objectives. • SMART Objectives • Objectives in a Rank Order • Establishing Goals and Objectives - Recommendations • Develop a Goal-Achieving Strategy • Summary of the Report • Guidelines for drafting a strategic plan • Questions to Ponder	**Day 4: Putting the Plan into Action** • Assign Authority and Responsibility • Responsibilities • The Strategic Alignment • Assigning Responsibilities and Authority • Create a System for Monitoring

THE SPEAKER

Paolo Hilado

- *Data Scientist*
- *Director for Research and Planning - Colegio San Agustin Bacolod*
- *Certificate in Data Science and Connectivity to Artificial Intelligence* - Johns Hopkins University, Baltimore Maryland
- *Micromasters in Data Science* - University of California San Diego
- *Post Graduate Diploma in Research and Development Management* - University of the Philippines Open University, Los Baños, Laguna
- *Masters Degree in Nursing* - West Negros University

STATISTICAL TOOLS ENABLEMENT IN-DEPTH
TRAINING WORKSHOP

Course Description:

Statistical Tools Enablement in-depth Training Workshop - in this workshop participants will learn how to manage and prepare data before the statistical analysis. Further, participants will also learn and understand each statistical test aims to test(ex. relationship, causation, or difference). Participants of this course will also learn how to interpret the results and write narratives. The software that the participants will use are JAMOVI and JASP, these are freeware and user-friendly.

Course Objectives:

1. Learn how to manage and prepare data using JASP and JAMOVI.

2. Learn how to run the statistical test using JASP and JAMOVI. Further, understand the practical application and assumptions of each statistical test.

3. Learn how to report and write the narrative on each statistical tests result.

4. Identify the right statistical test depending on the characteristics of the variables.

Course Outline

Day 1

*Introduction to Jasp and JAMOVI
*Data Encoding using JAMOVI
*Running and Interpreting Frequencies using JAMOVI
*Introduction to basic statistics:mean, median, mode and normal distribution
*Identifying and treating outliers in a distribution

Day 2

*Test of independence: Chi-square test of independence and Correlation: Pearson, Spearman and Kendall Tau
*Test of difference: Paired t-test and Wilcoxon signed-rank
*Comparison of Means (2 groups): Independent T-test and Mann-whitney U test
*Comparison of Means(More than 2 groups): One-way ANOVA and Kruskal Walis-H

Day 3

*Regression Analysis: Linear and Logistic
*ANCOVA
*Reliability

*Factor Analysis

PROGRAM OF ACTIVITIES: STATISTICAL TOOLS ENABLEMENT IN-DEPTH TRAINING WORKSHOP

Day 1: Basics

Opening of the workshop (Doxology, National Anthem and opening remarks)	8:45AM to 9:00AM
Introduction to Jasp and JAMOVI	9:01AM to 10:30AM
Recess/Break	10:31AM to 10:45AM
Data Encoding using JAMOVI	10:46AM to 11:59AM
Lunch Break	12:00PM to 1:00PM
*Running and Interpreting Frequencies using JAMOVI *Introduction to basic statistics:mean, median, mode and normal distribution	1:01PM to 2:30PM
Identifying and treating outliers in a distribution	2:31PM to 4:00PM
Dismiss	

Day 2: Workshop

Consultation	8:45AM to 9:00AM
Test of independence: Chi-square test of independence and Correlation: Pearson, Spearman and Kendall Tau	9:01AM to 10:30AM
Recess/Break	10:31AM to 10:45AM
Comparison of Means (2 groups): Independent T-test and Mann-Whitney U test	10:46AM to 11:59AM
Lunch Break	12:00PM to 1:00PM
Comparison of Means(More than 2 groups): One-way ANOVA and Kruskal Walis-H	1:01PM to 2:30PM
Break/Recess	2:31PM to 2:45PM
Continuation of Workshop/Hands-on activities	2:46PM to 4:00PM
Dismiss	

Day 3: Workshop(Advanced Statistics)

Regression Analysis: Linear and Logistic	9:01AM to 10:30AM
Recess/Break	10:31AM to 10:45AM
Analysis of Covariates/ANCOVA	10:46AM to 11:59AM
Lunch Break	12:00PM to 1:00PM
Reliability Test and Exploratory Factor Analysis	1:01PM to 2:30PM
Break/Recess	2:31PM to 2:45PM
Confirmatory Factor Analysis	2:31PM to 4:00PM
Dismiss	

STRATONE

THE SPEAKERS

JOSEPH D. FRANCISCO

- **Executive Director**
  Strategic One Business Management
  Consultancy Firm

- **Certified IBM SPSS Statistics Specialist**

- **Professor**(Graduate and Undergraduate
  Programs in Research Writing, Research
  Seminar in Business, Statistics, Financial
  Management & Strategic Management) –
  Holy Trinity University, Palawan

- **10 years of experience** in conducting
  statistical analysis workshop using IBM
  SPSS, JASP and JAMOVI

- **Doctor of Business Administration –
  Candidate**, Rizal Technological University

- **Masters in Business Administration –**
  Pamantasan ng Lungsod ng Muntinlupa

ARTURO PATUNGAN JR.

- **Data Scientist**

- **Consultant**

- **Assistant Professor** - *University of Santo
  Tomas*

- **Ph.D. Mathematics Education (Candidate)**
  – *University of the Philippines, Diliman*

- **Master of Arts in Mathematics** - *University
  of the Philippines, Diliman*

STRATEGIC ONE BUSINESS MANAGEMENT CONSULTANCY FIRM
02-8-801-5903   YAKAL ROAD, TUNASAN, MUNTINLUPA CITY, METRO MANILA

QUESTIONNAIRE DESIGN AND DATA COLLECTION TECHNIQUES IN-DEPTH TRAINING WORKSHOP

Course Description:

This hands-on training course is ideal for individuals charged with the task of creating an effective survey instrument for gathering respondent data, including customer satisfaction data. In this 3-day training seminar participants will learn:

- How to avoid the common pitfalls in writing questionnaires for in-person, phone, web and mobile surveys.
- How to plan and flowchart a questionnaire to guide the overall logic and enhance the survey taking experience.
- How to phrase questions; when to use open-ended and closed-ended questions and how to choose the most appropriate rating, ranking, multiple choice, check-list or other approaches.
- How to phrase difficult questions dealing with memory, knowledge and sensitive subjects and how to measure the importance of product attributes.
- How to administer questionnaires to substantially improve response rates and improve the quality of your results by incorporating some of the industry's best practices and learnings based on R&D examples and case studies.
- How to bring all the learning together in a team-based workshop designing an online questionnaire.

Course Objectives:

1. Learn how to manage and prepare data using JASP and JAMOVI.

2. Learn how to run the statistical test using JASP and JAMOVI. Further, understand the practical application and assumptions of each statistical test.

3. Learn how to report and write the narrative on each statistical tests result.

4. Identify the right statistical test depending on the characteristics of the variables.

Course Outline

Questionnaire Construction

- *The role of questionnaires in research*
- *A workshop on survey writing*
- *Common problems in questionnaire construction and administration*
- *Basic principles of questionnaire design*
- *Understanding your role in the pro*
- *Questionnaire construction framework*
- *Determining data needs*

Selecting and Recruiting Survey Respondents

- *Decisions in selecting a sample*
- *Online panels*
- *Achieving a balanced panel*
- *Professional panelists*
- *Non-response error*
- *A comparison of panel quality*
- *Inviting sample participants*
- *Using incentives*
- *Methods of Survey Administration*

Data collection methods

- *Multimode data collection*
- *Mobile data colection and micro surveys*
- *Chunking surveys*
- *Intentional quantitative mobile*
- *Mobile research case studies*
- *Intentional vs. unintentional mobile research*
- *Organizing a Survey*

Questionnaire construction framework

- *Flowcharting a survey*
- *Determining question order*
- *Writing screener questions*
- *Writing survey instructions*
- *Workshop on survey instructions*
- *Checking the questionnaire*
- *Pretesting the questionnaire*
- *Content of Marketing Research Survey Questions*

History questions: What can consumers remember?

- *Asking knowledge questions*
- *Asking sensitive questions*
- *Measuring perceptions and attitudes*
- *Asking about future intentions*
- *Asking importance: direct and indirect methods*
- *Types of Questions*

Online research best practices do's and don'ts

- *Deciding on the best type of questions to use*

- *Open-ended vs. closed ended questions*
- *Online questions types*
- *Issues when writing dichotomous questions*
- *Issues when writing multiple choice questions*
- *Prohibiting backward navigation on surveys*

Issues With Wording Questions

- *Checklist for quality questions*
- *Mini workshop on improving question wording*
- *Checklist for choosing words*
- *Checklist for phrasing questions*
- *Asking demographic questions*
- *A review of participants' surveys*
- *Workshops on Writing Surveys*

A workshop on improving clarity and usefulness of survey questions

- *A workshop on cleaning up a flawed survey*
- *A workshop on rewriting and pretesting a flawed question*
- *Nature of Data*

Understanding different levels of measurement

- *Key considerations in scale selection*
- *Types of scales*
- *Single-item vs. multiple-item scales*
- *Psychographics*
- *Key decisions in using rating scales*
- *Checklists for choosing the right scales*
- *What is binary imputation?*
- *Changing rating scales*
- *Advanced Survey Design*

How much attention do respondents pay to survey questions?

- *A comparison of data quality from 21 different panel providers*
- *Does the type of question used impact the attention paid to surveys?*
- *Can survey takers be influenced to pay more attention?*
- *Do obvious trap questions improve data quality?*
- *Online survey length effects*
- *How to keep people engaged in long surveys*
- *Gamification of research*
- *Prediction markets in marketing research*
- *Workshop: Creating a Questionnaire*

PROGRAM OF ACTIVITIES: QUESTIONAIRE DESIGN AND DATA COLLECTION TECHNIQUES IN-DEPTH TRAINING WORKSHOP

Opening of the workshop (Doxology, National Anthem and opening remarks)	8:45AM to 9:00AM
• **Questionnaire Construction**	9:01AM to 10:30AM
Recess/Break	10:31AM to 10:45AM
• **Selecting and Recruiting Survey Respondents** • **Data collection methods**	10:46AM to 11:59AM
Lunch Break	12:00PM to 1:00PM
• **Questionnaire construction framework** • **History questions: What can consumers remember?** • **Online research best practices do's and don'ts**	1:01PM to 2:30PM
• **Issues With Wording Questions** • **A workshop on improving clarity and usefulness of survey questions** • **Understanding different levels of measurement** • **How much attention do respondents pay to survey questions?**	2:31PM to 4:00PM
Dismiss	

QUALITATIVE DATA ANALYSIS USING FREEWARE IN-DEPTH TRAINING WORKSHOP (AUGUST 25-27, 2021)

Course Description:

Interviews, case studies, and texts are important sources of information on environment and sustainability issues. These methods yield data about how and why people think and behave in the ways that they do, and the broader context in which people make decisions. Because these methods yield large amounts of rich, descriptive data, analysis generally follows a qualitative approach. This course will introduce participants to techniques, tools, and frameworks for qualitative data analysis.

The course will follow a combined lecture and hands-on workshop in which participantss will receive guidance on how to conduct qualitative data analysis as well as peer feedback on their own qualitative data analysis efforts. On the last day or third day of the workshop participants will learn how to use Orange (Data science freeware) on creating a word cloud, sentiment analysis and text mining.

Objectives:

• Learn about the nature and application of qualitative research in social and organizational research.

• Learn to conceptualize qualitative research and to formulate problem statements and research questions.

• Learn how to design a qualitative research study.

• Learn about qualitative data collection procedures--observation, interviews, focus group interviews, and collection and use of documents and archival data.

• Learn the power of Orange for Data Science (FREEWARE) on performing text mining, word cloud and sentiment analysis.

Learning outcomes:

1. Explain the utility of different approaches to qualitative data analysis

2. Understand how to manage qualitative data to protect confidentiality of human subjects

3. Apply key techniques, and tools in qualitative data analysis

4. Distill findings into conceptual models and matrices

5. Interpret the results of qualitative data analysis to answer a research question.

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6. Perform text mining, word cloud and sentiment analysis using Orange for Data Science Freeware.

COURSE OUTLINE

- Overview of Qualitative Research: Defining the Research Problem
- Phenomenological Research: Purpose, Method, Analysis and Outcomes
- Ethnography: Purpose, Method, Analysis and Outcomes
- Case Study: Purpose, Method, Analysis and Outcomes
- Historical Design: Purpose, Method, Analysis and Outcomes
- Narrative Design: Purpose, Method, Analysis and Outcomes
- Action Research: Purpose, Method, Analysis and Outcomes
- Data Collection Techniques: Choosing the Right Method
- Reporting Qualitative Findings
- -Assessing Qualitative Research
- -How not to assess qualitative research
- Text Mining: Purpose, Method, Analysis and Outcomes
- Word Cloud: Purpose, Method, Analysis and Outcomes
- Sentiment Analysis: Purpose, Method, Analysis and Outcomes

The speakers:

LIZA LORENA C. JALA, PH.D.ED.-RE

- **Consultant Statistician & Member of the Research Technical Review Committee -** Department of Internal Medicine, Vicente Sotto Memorial Medical Center

- **Consultant - Mactan** Cebu International Airport Authority, Customer Satisfaction Survey

- **Former Consultant Statistician on Customer Satisfaction -** Mandaue City

Paolo Hilado

- *Data Scientist*

- *Director for Research and Planning - Colegio San Agustin Bacolod*

- *Certificate in Data Science and Connectivity to Artificial Intelligence - Johns Hopkins University, Baltimore Maryland*

- *Micromasters in Data Science - University of California San Diego*

Government on Business & Licensing Division - **Doctor of Philosophy in Education major in Research and Evaluation** o University of San Carlos Recipient of CHED Dissertation Grant - **Masters of Science Teaching major in Mathematics -** University of Cebu	- ***Post Graduate Diploma in Research and Development Management*** *- University of the Philippines Open University, Los Baños, Laguna* - ***Masters Degree in Nursing*** *- West Negros University*

Course Outline for Market Research: DO IT YOURSELF

This 4-day virtual workshop was designed to adapt to the current challenges of the pandemic. Agencies/organizations slashed their funding for research. Therefore, employees must step up and help the organization in gaining market insight. This course applies to the following individuals:

- *Professors/faculties teaching market research*
- *Entrepreneurs*
- *Government employees*

This course will provide participants with an in-depth understanding of market research. Participants will be involved in a practical application of market research via a group project which will focus on a real company situation. Participants will write a research brief, determine the research methodology and conduct interviews and surveys as required. Participants will be asked to present their findings in both written and oral form to their clients.

Course Learning Outcomes

- Knowledge and Understanding.
- **Conduct market research with less than the PHP20,000.00 budget.**
- This course is designed to provide participants with a basic understanding of the market research process and the role of market research in strategic decision-making. There will be a focus on understanding the theoretical components of research design and developing practical data collection, analysis, and interpretation skills.
- Through practical application within a market research project, participants will design a research project from selecting the appropriate research design, research method, choosing the correct sampling technique, new trends in data collection, and interpreting and writing data analysis.

Learning Outcomes

1. Discuss the managerial importance of market research and its role in marketing strategy

2. Provide a detailed overview of the stages in the market research process

3. Develop a market research design that incorporates appropriate research approaches, including measurement instruments and sampling frames.

4. Use contemporary statistical packages such as **JASP and JAMOVI** (freewares) to analyze quantitative data.

5. Interpret data analysis in the context of the identified business problem.

6. Communicate research results in written and oral presentation formats.

Course Outline

- Market Research and the Research Process
- The Nature of Qualitative Research
- The Nature of Quantitative Research
- Survey (Quantitative) Research
- Survey Design: Writing Questions
- Sampling and Data Collection
- An Overview of Statistical Analysis Techniques & Introduction to JASP & JAMOVI
- Data Analysis:
    - Tests of Differences
    - Data Analysis: Tests of Associations
    - Data Analysis: Multivariate Analysis (Regression Analysis)
    - Cluster Analysis
    - Interpretation and Report Writing

THE SPEAKERS

LIZA LORENA C. JALA, PH.D.ED.-RE

- **Consultant Statistician & Member of the Research Technical Review Committee -** Department of Internal Medicine, Vicente Sotto Memorial Medical Center

- **Consultant - Mactan** Cebu International Airport Authority, Customer Satisfaction Survey

- **Former Consultant Statistician on Customer Satisfaction -** Mandaue City Government on Business & Licensing Division

- **Doctor of Philosophy in Education major in Research and Evaluation**
    - University of San Carlos Recipient of CHED Dissertation Grant

ARTURO PATUNGAN JR.

- **Data Scientist**

- **Consultant**

- **Assistant Professor** - *University of Santo Tomas*

- **Ph.D. Mathematics Education (Candidate)** – *University of the Philippines, Diliman*

- **Master of Arts in Mathematics** - *University of the Philippines, Diliman*

STRATEGIC ONE BUSINESS MANAGEMENT CONSULTANCY FIRM
Yakal Road, Tunasan, Muntinlupa City
Tel. no: 02-8-801-5903/09984604375

• **Masters of Science Teaching major in Mathematics -** University of Cebu	

REQUIRED SOFTWARE/TECHNOLOGY:

- The workshops of STRATOne are conducted virtually via Zoom.
- A **Gmail account** is required. Participants will be invited to join **Google Classroom**. Supplemental materials will be uploaded via Google Classroom. Participants are allowed to post questions and comments in the classroom; in turn, the moderator will route the query to the resource speakers.
- On days 3 and 4, participants will be using **JASP and JAMOVI** (these are freeware for data analysis).

Syllabus: FUNDAMENTALS OF STATISTICS AND PROBABILITY

Course Description:

4-DAY VIRTUAL WORKSHOP VIA ZOOM. Understanding statistics is essential to understand research in the social and behavioral sciences. In this course you will learn the basics of statistics; not just how to calculate them, but also how to evaluate them. This course will also prepare you for the next course in the specialization - the course Inferential Statistics.

The first part of the course is concerned with the basics of probability: calculating probabilities, probability distributions and sampling distributions. You need to know about these things in order to understand how inferential statistics work.

In the second part of the course we will discuss methods of descriptive statistics. You will learn what cases and variables are and how you can compute measures of central tendency (mean, median and mode) and dispersion (standard deviation and variance). Next, an introduction to methods of inferential statistics - methods that help us decide whether the patterns we see in our data are strong enough to draw conclusions about the underlying population we are interested in. We will discuss confidence intervals and significance tests.

On the final part of the course, we discuss how to assess relationships between variables, and we introduce the concepts correlation and regression.

You will not only learn about all these statistical concepts, you will also be trained to calculate and generate these statistics yourself using freely available statistical software.

Learning outcomes:

*Learn how to choose the right statistical test that will help in explaining a phenomena.

*Learn how probability works.

*Learn statistical hypothesis testing works.

*Learn how to run statistical analysis using user-friendly freeware such as JASP and JAMOVI.

Course Outline:

Probability
- Randomness
- Probability
- Sample space, event, probability of event and tree diagram
- Quantifying probabilities with tree diagram
- Basic set-theoretic concepts
- Practice with sets
- Joint and marginal probabilities

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- Conditional probability
- Independence between random events
- More conditional probability, decision trees and Bayes' Law

Probability Distributions
- Random variables and probability distributions
- Cumulative probability distributions
- The mean of a random variable
- Variance of a random variable
- Functional form of the normal distribution
- The normal distribution: probability calculations
- The standard normal distribution
- The binomial distribution

Sampling Distributions
- Sample and population
- Sampling
- The sampling distribution
- The central limit theorem
- Three distributions
- Sampling distribution proportion

Confidence Intervals
- Statistical inference
- CI for mean with known population
- CI for mean with unknown population
- CI for proportion
- Confidence levels
- Choosing the sample size

Exploring Data
- Cases, variables and levels of measurement
- Data matrix and frequency table
- Graphs and shapes of distributions
- Mode, median and mean
- Range, interquartile range and box plot
- Variance and standard deviation
- Z-scores

Significance Tests
- Hypotheses
- Test about proportion
- Test about mean
- Step-by-step plan
- Significance test and confidence interval

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Yakal Road, Tunasan, Muntinlupa City
Tel. no: 02-8-801-5903/09984604375

- Type I and Type II errors

Correlation and Regression
- Crosstabs and scatterplots
- Pearson's r
- Regression - Finding the line
- Regression - Describing the line
- Regression - How good is the line?
- Correlation is not causation

THE SPEAKER:

JEROME L. BUHAY

- Researcher/Statistician/Consultant
- Professor at De La Salle University – Dasmariñas
- PhD in Mathematics Education (Ongoing)
- PhD in Statistics (with earned units)
- Master of Arts in Mathematics
- BS in Applied Mathematics maj. In Statistics

REQUIRED SOFTWARE FOR THIS WORKSHOP:

- **Zoom**
- **Jasp (Freeware Statistical Software)**
- **JAMOVI (Freeware Statistical Software)**
- **Gmail account for Google Classroom**

ESSENTIALS OF TECHNICAL WRITING – WORKSHOP (SEPTEMBER 23 AND 24, 2021)

Course Description: Technical writing is unique because of its specialized content. It must convey objectivity and reach both technical and non-technical audiences with exactness and clarity. Along with writing emails, letters, and reports, the technical writer must prepare definitions, physical descriptions, product specifications, procedures, test and laboratory results, and many other kinds of documents.

This seminar offers you a battery of tools and techniques to help you jumpstart the writing process on any challenging technical writing endeavor. You will learn ways to defeat writer's block, procrastination, and writer's anxiety, as well as how to develop a better understanding of readers' needs and expectations. You will also discover principles and approaches covering a broad range of industries and topics and getting hands-on experience improving your technical writing ESP—efficiency, sufficiency, and proficiency.

Methodology: Online workshop via ZOOM

Who Should Attend?

- Government
- Academe
- Private Sector

Anyone who wishes to enhance their technical writing skills to better communicate with their audiences.

Objectives:

- *Create a full range of technical documents with solid structures*
- *Use templates to start the writing process quickly*
- *Explore techniques for getting past writer's block*
- *Prepare detailed messages for both technical and non-technical readers*
- *Understand best practices for displaying visual information*
- *Edit language for precision, clarity, and conciseness*
- *Summarize complex issues with authority and clarity*

Learning Objectives

- *Distinguish Among the Elements of Technical Documents*
- *Create a Full Range of Technical Documents with a Solid Structure*
- *Use Templates to Jumpstart the Writing Process*
- *Use Techniques for Overcoming Writer's Block*
- *Evaluate Technical Data Based on the Writer's Purpose and the Reader's Concerns*
- *Prepare Detailed Messages with a Style for Technical and Non-technical Writers*
- *Structure the Format to Enhance Presentation and Ideas*
- *Use Linking Words and Phrases in Sentences and Paragraphs*
- *Apply Best Practices for Displaying Visual Information*
- *Edit Language for Precision, Clarity, and Conciseness*
- *Choose Language for Appropriateness*
- *Summarize Complex Issues with Authority*

STRATEGIC ONE BUSINESS MANAGEMENT CONSULTANCY FIRM
Yakal Road, Tunasan, Muntinlupa City
Tel. no: 02-8-801-5903/09984604375

COURSE OUTLINE:

The Landscape

- Define Technical Writing
- Identify Characteristics of Technical Writing
- Distinguish Between Two Commonly Used Technical Writing Styles
- Classify the Challenges That Technical Writers Face

The Maps

- Distinguish Among the Elements of Technical Documents
- Identify a Full Range of Technical Documents with a Solid Structure
- Use Templates to Jumpstart the Writing Process
- The Technical Writing Process

Overcome Writer's Block
- Generate Ideas Through an Efficient Writing Process

The Technical Writing Product

- Evaluate Technical Data Based on the Writer's Purpose and the Readers' Concerns
- Assess Your Writing Style Based on the Audience

Organizing Ideas

- Compose Effective Patterns of Technical Writing
- Structure the Format to Enhance Presentations and Ideas
- Use Linking Words and Phrases in Sentences and Paragraphs

Visualizing Ideas

- Apply Best Practices for Displaying Visual Information
- Use the Full Range of Illustrations in Technical Writing

Editing at the Sentence Level

- Identify Common Sentence Problems and Their Solutions
- Edit Imprecise, Unclear, or Wordy Sentences
- Combine Sentences for Fluency
- Edit Sentences for Active Voice
- Edit Sentences for Parallel Structure

Editing at the Word Level

- Choose Correct Grammar, Words, Punctuation, and Mechanics
- Summarize Complex Issues with Authority

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The Speaker

Raymond Peter D. Ibasco
Associate Professor,
De La Salle University - Dasmariñas

-Doctor of Philosophy in Reading (Candidate) - Philippine Normal University
-Master of Arts in English Language Education

The registration fee per participant is P2500.00.