





Universidad del País Vasco



Universidad de Sonora





Elaboración y evaluación de materiales de aprendizaje Red de Innovación Educativa y Calidad Docente

OpenStat. Guía de uso

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OpenStat. Guía de Uso

Objetivos

Utilización del paquete OpenStat

Conocimiento previo

Contenido

1) Acceso e instalación del software libre:

Sitio Web http://statpages.info/miller/OpenStatMain.htm

🗅 Free Statistics Progra 🗙 🦲 — 📃 👘
← → C C statpages.info/miller/OpenStatMain.htm ☆
Free Statistics Programs and Materials by Bill Miller
Final Version Since I am now retired
(Click on a topic to download the corresponding file)
OpenStat Material
For a brief view of OpenStat, click here: <u>OpenStat_Features.htm</u>
For a partial list of research published using OpenStat, click here:
<u>citations.htm</u>
OpenStat contains a large variety of parametric, nonparametric, multivariate, measurement, statistical process control, financial and other procedures. One can also simulate a variety of data for tests, theoretical distributions, multivariate data, etc. You will want to explore all of these options once you acquire the program! For a complete list of all analyses, click hear:
<u>OpenStatAnalyses htm</u>
Note! OpenStat runs on Windows 8, Windows 7, XP, Virtual XP (in Windows 7) or older versions of Windows. If you are using Linux or MacIntosh OSX, you can download the free WINE software and run OpenStat with WINE.
OpenStatSetup.exc This is an INNO setup file for the program. (Last update Dec. 11, 2013)
OpenStatData zip A. zip file of sample data files for OpenStat. (Last updated July 5, 2013)
OpenStatHelpFiles.zip: A separate .zip file of the help files which can be accessed via the F1 key in OpenStat. These files should already be a part of your setup but if, for some reason they are not, you can download this file and unzip it to the same location on your disk where you stored the OpenStat program.

Descargar y desde el folder de descargas copiar a una nueva carpeta etiquetada OpenStat – (siglas) y desde ahí ejecutar la instalación:





Seguir los pasos de la instalación

Setup - OpenStat	_ 🗆 🗙
Welcome to the Ope Setup Wizard This will install OpenStat version 2.0 or It is recommended that you close all ot before continuing. Click Next to continue, or Cancel to exit	enStat n your computer. her applications Setup.
Next	t > Cancel

setup - Openstat – –
Select Destination Location Where should OpenStat be installed?
Setup will install OpenStat into the following folder.
To continue, click Next. If you would like to select a different folder, click Browse.
C:\Program Files\OpenStat Browse
At least 71.4 MB of free disk space is required.
< Back Next > Cancel
Setup - OpenStat ×
Select Start Menu Folder
Where should Setup place the program's shortcuts?
Where should Setup place the program's shortcuts? Image: Setup will create the program's shortcuts in the following Start Menu folder.
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Click Install to continue wit change any settings.	th the installation, or click Back if you want to review or
Destination location: C:\Program Files\Ope	enStat
Start Menu folder: OpenStat	
Additional tasks: Additional icons: Create a desktop ic	on
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	< Back Install Cancel
	Setup - OpenStat 🛛 🗕 🗖 🗙
	Completing the OpenStat Setup Wizard Setup has finished installing OpenStat on your computer. The application may be launched by selecting the installed icons. Click Finish to exit Setup.
	✓ Launch OpenStat

2) Preparación de carpeta para bases de datos y ruta de acceso:

2

En la carpeta personal de REPRESENTACION CUANTI:

Crear una nueva carpeta llamada Datos OPENSTAT MGM (sus siglas):

Abrir OpenStat y pulsar la sección "Options" y navegar hacia la carpeta cambiando la ruta de acceso, por medio de pulsar las sub-carpetas hasta llegar a la carpeta "destinada": Datos OPENSTAT MGM

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A partir de este paso podemos ingresar bases de datos a la carpeta indicada y procesar una práctica con datos recogidos a través del Cuestionario de Estrategias de Aprendizaje para adolescentes.

1) Preparación de BASE DE DATOS en formato .csv

Como primer paso se captura la base de datos en EXCEL con las etiquetas de las variables en la primera fila:

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3	3	2	2	16	3	2	4	4	3	2	3	2	4	3	3	2	1	3	3	2	2	3	2	3	2	3	4	3	2	
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Una vez completa la base se da <u>formato de número</u> a todas las celdas por medio de y se ocultan los decimales por medio de las opciones:

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Una vez que se tienen estos cambios se activa la opción ARCHIVO "Guardar

Seleccionando el formato con extensión CSV (delimitado por comas)

Una vez guardado en ese formato el archivo aparecerá como:



Y este es el archivo que deberá copiarse al Folder donde esta direccionada la ruta de OpenStat:



Una vez colocada la Base en el folder de la ruta OpenStat, está lista para cargarse al programa para su análisis

Abrimos OpenStat y desde la opción FILES.... Import Comma File:

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A partir de esta etapa el análisis y graficado de las variables puede comenzar.

Guía de Uso OpenStat 3

Lectura de bases de datos

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FILE	S VARIABLES	EDIT	ANALYSES	SIMULAT	ΓΙΟΝ	UTILITIES	OPTIONS	HELP			
	New File (Clear	Grid)		-	nish)	N CASES	No. VAR.S	ASCII	STATUS:		
	Open a Text-ty Save a Text-typ	pe file oe File	(.TEX or .S4U (.TEX))		0	1		Press F1 for	help whe	n on any
	Open a binary f Save a binary F	file (.BI ile (.BII	N or .OS4) N)								
	Close File										
	Import Tab File Import Space F	ile									
	Import Comma	File									
	Open a format	ted tex	t file								
	Open an EPIDA	TA .RE	C file								
	Open a Matrix	file (*.N	(TAN								
	Export Tab File Export Space F Export Comma	ile File									
	Print Grid	int Grid									_
	Previous Files U	lsed									

<u>.</u>	OpenSta	it Dec. 11, 2013	_ 🗆 🗙
FILES VARIABLE	S EDIT ANALYSES SIMULATION	UTILITIES OPTIONS HELP	
ROW C	OL. Cell Edit (Return to finish)	N CASES No. VAR.S ASCI	STATUS:
1		Abrir	Press E1 for help when on an X
UNITS VAR1 CASE 1	Buscar en: Nombre Base EAP IN Nombre: Tipo: Cor	1 Datos OPENSTAT MGM	 ✓ Fecha de modificación 29/05/2014 09:33 a.m. ✓ Abrir Cancelar
Add Variable F	ILE: Temporary.TEX		
ROW 1	COL. Cell Edit (Return to f	inish) N CASES No. VAR.S AS	SCII STATUS: Press F1 for help when on any
UNITS VAR1 CASE 1			
		VARI	ABLES
		Are variable labels incl	uded?
Add ∨ariable	FILE: Temporary.TEX		

B				Ope	nStat	Dec. 11,	2013			_	×	<
FILES \	ARIABLES	EDIT	ANALYSES	SIMULA	TION	UTILITIES	OPTIONS	HELP				
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1	1					389	56		Press	F1 for help v	/hen or	1 any
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CASE1	1	1	1	16	4	3	2	4	2	1	4	-
CASE2	1	2	2	17	4	2	3	1	4	3	2	
CASE3	1	3	2	16	3	2	3	2	3	1	1	-
CASE4	1	4	1	16	4	4	4	4	3	4	4	
CASE5	2	5	1	13	4	1	3	2	2	3	3	
CASE6	2	6	1	13	3	2	4	4	3	1	3	-
CASE7	2	7	2	14	3	3	2	3	4	4	4	
CASE8	2	8	2	15	3	2	4	2	2	2	3	
CASE9	2	9	1	14	3	4	3	3	2	2	3	
CASE10	2	10	1	14	3	3	2	3	3	1	3	
CASE11	3	11	2	17	3	3	3	3	3	3	3	
CASE12	3	12	2	16	3	2	4	4	3	2	3	~
<											>	
Add Va	Add Variable FILE: C:\Users\Manuel Gonzalez\Documents\1 Datos OPENSTAT MGM\Base EAP INTEGRA 1.csv											

Cálculo de media, desviación estándar y puntuaciones estandarizadas (z)

Es necesario AGRUPAR las variables como FACTORES (en este caso 4 grupos:

Bajo la opción VARIABLES....seleccionar "COMBINE VARIABLES WITHIN CASES"

B					OpenStat	Dec. 11,	, 2013		_		x
FILES	VA	RIABLES	EDIT	ANALYSES	SIMULATION	UTILITIES	OPTIONS	HELP			
ROW		Define				Б	No. VAR.S	ASCII	STATUS:		
1		Print Die	ctionar	у		ľ	1		Press F1 for h	elp wh	en on any
		Sort Cas	ses								
UNITS		Transfo	rm								
CASE 1		Transfo	rm All '	Variables			4				
		Combin	e Varia	ble Values w	ithin cases						
		Create E	Expand	ed File from	Frequency Data	a	N				
		Enter an	n equat	ion							
		Split Th	is File (TEX type on	ly)						
		Merge F	File (.TE	X type only)							
	_										
		1									
Add \	/arial	ole FILE	: Tem	porary.TEX							
	_		_							_	

Para crear los agrupamientos seleccionaremos las variables de acuerdo a la siguiente lista:

PCON (12)	PEST(11)	PORG(10)	PMOT (9)
27	1	13	7
28	2	14	24
35	3	15	26
36	4	16	29
37	5	17	30
38	6	18	31
39	8	20	32
40	9	21	33
41	10	23	34
42	11	25	
43	12		
44			

le Compute Variable Combinations									
Available Variables:			Selected Va	ariables:					
MUES IDEN GENE EDAD R01 R02 R03 R04 R05 R06 R07 R08 R09 R10 R11 R12 R13 R14 R15 R16 R17 R18 R19	~	◆							
-Combine All Variables As:									
Sum of selected variables		New Vari	iable Name:	NewVar					
Product of selected variables									
O Average of selected variables		Res	et	Cancel	Compute				



Compute Variable Combinations									
Available Variables:	Selected Variables:								
R26 R27 R28 R29 R30 R31 R32 R33 R34 R35 R36 R37 R36 R37 R38 R39 R40 R41 R42 R43 R44 PORG PEST PCON PMOT	 R01 R02 R03 R04 R05 R06 R08 R09 R10 R11 R12 								
Combine All Variables As:	New Variable Name: PEST								
C Product of selected variables									
C Average of selected variables	Reset Cancel Compute								

Compute Variable Combinations									
Available Variables:	Selected Variables:								
MUES IDEN GENE EDAD R01 R02 R03 R04 R05 R06 R07 R08 R09 R10 R11 R12 R19 R22 R24 R22 R24 R26 R27 R28 R29	 ▶ ▶ № №								
Combine All Variables As:									
Product of selected variables									
O Average of selected variables	Reset Cancel Compute								

Real Compute Variable Combinations									
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R23 R27 R28 R35 R36 R37 R38 R39 R40 R41 R42 R43 R44 PORG PEST PCON PMOT PORGz PESTz PCONz PCONz PCONz PMOTz R25	+	R07 R24 R26 R30 R31 R32 R33 R34							
Combine All Variables As:]		DHOT						
 Sum of selected variables 	New Vari	able Name:							
C Product of selected variables				1					
C Average of selected variables	Rese	et	Cancel	Compute					

De esta forma se han creado las 4 nuevas variables combinadas PORG, PEST, PCON y PMOT.

En esta etapa es importante guardar los cambios a la base de datos. Se activa la opción FILESEXPORT COMMA FILE

*	OpenStat	Dec. 11,	2013			_ □	X	
FILES VARIABLES EDIT ANALYSES S	IMULATION	UTILITIES	OPTIONS	HELP				
New File (Clear Grid)	nish)	N CASES	No. VAR.S	ASCII	ASCII STATU			
Open a Text-type file (.TEX or .S4U)		389	52		Press	F1 for help	when on	any
Save a Text-type File (.TEX)	R01	R02	R03	R04	R05	R06	R07	^
Open a binary file (.BIN or .OS4)	4	3	2	4	2	1	4	
Save a binary File (.BIN)	4	2	3	1	4	3	2	
Close File	3	2	3	2	3	1	1	
Import Tab File	4	4	4	4	3	4	4	
Import Space File	4	1	3	2	2	3	3	
Import Comma File	3	2	4	4	3	1	3	
Open a formatted text file	3	3	2	3	4	4	4	
Open an EPIDATA REC file	3	2	4	2	2	2	3	
	3	4	3	3	2	2	3	
Open a Matrix file (*.MAT)	3	3	2	3	3	1	3	
Export Tab File	3	3	3	3	3	3	3	
Export Space File	3	2	4	4	3	2	3	~
Export Comma File							>	
Print Grid	cume	nts\1 Datos (OPENSTAT	MGM\Bas	se EAP INT	EGRA 1.cs	×	_
Previous Files Used								
Exit	1.1							

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Nombre	<u>^</u>			Fecha de m	odificación
Base EAP I	INTEGRA 1 INTEGRA 2			03/06/2014 03/06/2014	05:15 p. m. 05:05 p. m.
<					>
Nombre:					Guardar
Tipo:	omma files (*.csv)			•	Cancelar

Esta modificación conservará los cambios de manera que se verán presentes las 4 nuevas variables:

BA				Op	penStat	t Dec. 11,	2013			_ □	X	
FILES V	ARIABLE	S EDIT	ANALYS	ES 🦯 📃	ON	UTILITIES	OPTIONS	HELP				
ROW	CC)L.	Cell E	dit (Return t	o finish)	N CASES	No. VAR.S	ASCII	STATU	S:		
1	1					389	52		Press F	1 for help wh	en on	ı any
UNIT	R39	R40	R41	R42	R43	R44	PORG	PEST	PCON	РМОТ		^
CASE1	1	4	4	4	2	3	36	29	26	22		
CASE2	3	2	3	1	1	4	29	31	26	24	-	
CASE3	2	1	1	3	4	4	30	29	25	21	-	
CASE4	4	4	2	3	4	4	43	39	34	31	-	
CASE5	3	3	3	1	4	3	35	29	28	26	-	
CASE6	2	2	1	1	1	4	24	28	23	27	-	
CASE7	3	4	2	2	1	1	28	33	30	25	-	
CASE8	3	3	1	3	1	1	24	27	21	28	-	
CASE9	2	4	2	3	1	1	25	29	21	26	-	
CASE10	4	2	4	4	3	4	40	29	33	27	-	
CASE11	2	2	3	3	3	3	30	30	25	23	-	
CASE12	1	3	1	4	2	2	22	32	25	23		\sim
<											>	
Add Va	riable FIL	.E: C:\U	sers\Manu	el Gonzalez	:\Docume	ents\1 Datos (OPENSTAT	MGM\Bas	e EAP INTE	EGRA 1.csv		

A continuación se activan las opciones:

ANALYSIS....Descriptives....Central Tendency, Variability

.				OpenSta	at Dec. 1	1, 2013	3						
FILES	VARIABLE	S EDIT	ANALYSES	SIMULATION	N UTILITIE	S OPT	IONS	HELP C. AaBbCcc					
ROW	ROW COL.			Descriptive				Central Tendency, Variability					
1	1		Comp	Comparisons				Frequencies					
			Analy	Analyses of Variance				Cross Tabulation					
UNIT	R39	R40	Correlation					Breakdown					
CASE1	1	4	Multi	ole Regression		+		Normality Tests					
CASE2	3	2	Interr	Interrupted Time Series Analysis				X Versus Y Plot					
CASE3	2	1	Multi	Multivariate				Group (integer) Frequency Charts					
CASE4	4	4	Nonp	Nonparametric				Repeated Measures Bubble Plot					
CASE5	3	3	Meas	Measurement				QQ or PP Plot					
CASE6	2	2	Matri	Matrix Manipulation				Smooth Data by Averaging					
CASE7	3	4	Statis	Statistical Process Control				Compare Two Distributions					
CASE8	3	3	Finan	Financial				Compare Observed to Theoretical Distribution					
CASE9	2	4	Linea	Linear Programming (SIMPLEX)				Three Dimension Rotation					
CASE10	4	2	4	4 3	4	40		Box Plots					
CASE11	2	2	3	3 3	3	30		X versus Multiple Y Plot					
CASE12	1	3	1	4 2	2	22		Stem and Leaf Plot					
<	<					1		Multiple Group X versus Y Plot					
							Resistant Line Analysis						
Add V	^{ariable} FII	_E: C:\U	sers\Manuel	Gonzalez\Docun	nents\1 Dato	s OPEN		Brown-Forsythe Test for Equal Group Variances					

Descriptive Statistics



bescriptive Statistics



A	Results Window		_ 🗆 🗙
🖻 🖬 📇 💥 🚡 A			Return
DISTRIBUTION PARAMETER ESTIMATES			
PORG (N = 389) Mean = 17.805	Variance = 240.292 Std.	Dev. = 15.501	
PEST (N = 389) Mean = 18.650	Variance = 247.950 Std.	Dev. = 15.746	
PCON (N = 389) Mean = 14.910	Variance = 166.628 Std.	Dev. = 12.908	
PMOT (N = 389) Mean = 16.013	Variance = 184.678 Std.	Dev. = 13.590	

PORG	PEST	PCON	PMOT	PORGz	PESTz	PCONz	PMOTz
36	29	26	22	1.17379	0.65727	0.85912	0.44057
29	31	26	24	0.72222	0.78428	0.85912	0.58774
30	29	25	21	0.78673	0.65727	0.78166	0.36698
43	39	34	31	1.62537	1.29233	1.47887	1.10284
35	29	28	26	1.10928	0.65727	1.01406	0.73491
24	28	23	27	0.39967	0.59376	0.62672	0.80850
28	33	30	25	0.65771	0.91129	1.16900	0.66132
24	27	21	28	0.39967	0.53025	0.47178	0.88208
25	29	21	26	0.46418	0.65727	0.47178	0.73491
40	29	33	27	1.43184	0.65727	1.40140	0.80850
30	30	25	23	0.78673	0.72077	0.78166	0.51415
22	32	25	23	0.27065	0.84779	0.78166	0.51415
32	34	26	33	0.91575	0.97480	0.85912	1.25001
31	29	29	24	0.85124	0.65727	1.09153	0.58774
37	37	23	33	1.23830	1.16532	0.62672	1.25001
23	26	29	25	0.33516	0.46675	1.09153	0.66132
26	28	30	25	0.52869	0.59376	1.16900	0.66132
35	37	19	30	1.10928	1.16532	0.31684	1.02925
44	41	36	32	1.68988	1.41935	1.63381	1.17642
28	33	24	23	0.65771	0.91129	0.70419	0.51415
22	36	12	33	0.27065	1.10181	-0.22544	1.25001
00	20	00	10	0 50000	0.05707	0 00070	0.91001

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FILES	VARIABLES EDIT ANALYSES	SIMULATI					
1	New File (Clear Grid)	nis					
9	Open a Text-type file (.TEX or .S4U) Save a Text-type File (.TEX)						
(Open a binary file (.BIN or .OS4) Save a binary File (.BIN)	4					
(Close File	3					
	mport Tab File mport Space File mport Comma File	4 4 3					
C	Open a formatted text file	3					
(Open an EPIDATA .REC file	3					
(Open a Matrix file (*.MAT)	3					
E	Export Tab File Export Space File	3					
E	Export Comma File	4					
F	Print Grid	4					
F	Previous Files Used	3					
E	Exit	4					

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Guardar en: 🕕 1 Datos OF	PENSTAT MGM	•	← 🗈	➡ 🖩 🕆		
Nombre	<u>^</u>			Fecha de	modificac	ión
Base EAP INTEGRA 1	Base EAP INTEGRA 1			03/06/2014 05:15 p.m.		
Base EAP INTEGRA 2				3/06/201	14 05:05 p.	m.
<						>
Nombre: Base EAP INTE	GRA 2				Guarda	r 🤇
Tipo: Comma files (*.c	sv)			•	Cancela	ır

De esta manera se conserva el nuevo archivo Base EAP INTEGRA 2 que contiene las puntuaciones estandarizadas PORGz, PESTz, PCONz, PMOTz, las cuales pueden ser interpretadas para cada caso individual.



