



# Explorando Intellectus Statistics: Potenciando tu análisis de datos

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# Objetivos

- **Presentar Intellectus Statistics a una audiencia que no está familiarizada con la herramienta, destacando sus características clave y funcionalidades para crear conciencia sobre su potencial para el análisis de datos.**
- **Demostrar cómo Intellectus Statistics puede agregar valor al análisis de datos en diferentes contextos, como la investigación académica y otros usos didácticos mostrando ejemplos prácticos.**
- **Despertar el interés de la audiencia al resaltar sus beneficios y capacidades avanzadas, así como su interfaz intuitiva diseñada para usuarios de todos los niveles.**





# El programado

- Intellectus Statistics es una herramienta innovadora diseñada para facilitar el análisis de datos.
- Ofrece una amplia gama de funciones y características para satisfacer las necesidades de análisis de datos de usuarios de todos los niveles.





# Características Principales

- **Análisis Descriptivo:**
  - Permite realizar análisis descriptivos detallados para comprender la distribución y las características de los datos.
- **Modelado Predictivo:**
  - Facilita la construcción y evaluación de modelos predictivos para pronosticar resultados futuros.
- **Visualizaciones Interactivas:**
  - Proporciona una variedad de herramientas de visualización interactivas para representar datos de manera efectiva.
- **Integración de Datos:**
  - Permite la integración fácil y rápida de datos de diferentes fuentes para un análisis completo.





# Funciones Avanzadas

- **Análisis de Series Temporales:**
  - Capacidades avanzadas para analizar datos temporales y detectar tendencias y patrones.
- **Aprendizaje Automático:**
  - Incorpora algoritmos de aprendizaje automático para la construcción de modelos sofisticados.
- **Optimización:**
  - Ofrece herramientas de optimización para mejorar la toma de decisiones basada en datos.





# Interfaz Intuitiva

- **Diseño Amigable:**
  - Interfaz intuitiva diseñada para usuarios de todos los niveles de experiencia.
- **Personalización:**
  - Permite personalizar la interfaz y los paneles según las preferencias individuales del usuario.
- **Asistencia Integrada:**
  - Funcionalidades de ayuda y soporte integradas para una experiencia sin problemas.





# Vamos a explorarlo

IntellectusStatistics<sup>™</sup>  
Statistical Software for the Non-Traditional

View: Interpreted Output | Underline Tooltips: OFF | Zoom: 100%

Table of Contents | Select Analyses

- Paired t-Test between KnowPretest
- Wilcoxon Signed Rank Test between P

KnowPretest and KnowPosttest could have been produced by a normal distribution (Razali & Wah, 2011). The results of the Shapiro-Wilk test were significant based on an alpha value of .05,  $W = 0.77, p < .001$ . This result suggests the differences in KnowPretest and KnowPosttest are unlikely to have been produced by a normal distribution, indicating the normality assumption is violated.

**Results**

The result of the two-tailed paired samples t-test was significant based on an alpha value of .05,  $t(56) = -5.06, p < .001$ , indicating the null hypothesis can be rejected. This finding suggests the difference in the means of KnowPretest and the means of KnowPosttest was significantly different from zero. The mean of KnowPretest was significantly lower than the mean of KnowPosttest. The results are presented in Table 1. A bar plot of the means is presented in Figure 1.

**Table 1**  
*Two-Tailed Paired Samples t-Test for the Difference Between KnowPretest and KnowPosttest*

KnowPretest		KnowPosttest		t	p	d
M	SD	M	SD			
27.07	10.65	43.30	21.69	-5.06	<.001	0.67

Note: N = 57. Degrees of Freedom for the t-statistic = 56. d represents Cohen's d.

**Figure 1**  
*The means of KnowPretest and KnowPosttest with 95.00% CI Error Bars*

Download Document





# Getting Started with Intellectus

How to use Intellectus, Key Definitions, Consulting Sessions, Helpful Resources, and Contacts



# For All Intellectus Users

## 5 Success Benchmarks for Intellectus Users

### 1) Set Up Data

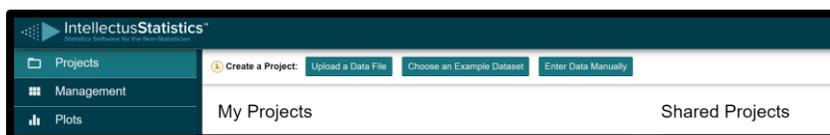
	Variable			
Observation				

When setting up your data for Intellectus, each variable is one column, and each row represents an individual respondent/observation. The top image to the right shows how data needs to be set up in Intellectus.

The bottom image on the right shows an example data set in Intellectus. The spreadsheet shows 7 variables (columns): Reading1, Reading2, Reading3, Reading4, ReadingPost1, Sex, and FavoriteColor. Additionally, the spreadsheet shows 20 individual respondents (rows).

	A	B	C	D	E	F	G
1	Reading1	Reading2	Reading3	Reading4	ReadingPost1	Sex	FavoriteColor
2	86.9	87.81	89.29	92.52	91.81	Male	Blue
3	87.9	89.06	89.08	89.63	92.3	Female	Blue
4	85.2	85.23	85.25	87.46	88.41	Female	Blue
5	83.8	84.55	84.5	84.7	85.68	Male	Blue
6	100	102	102	102	102	Male	Blue
7	89.4	90.66	92.99	93.49	93.35	Female	Blue
8	74.5	75.14	74.42	75.56	76.41	Female	Blue
9	84.4	84.58	84.15	85.78	86.79	Male	Blue
10	85.7	88.21	87.59	88.43	88.82	Female	Blue
11	95	95.87	96.58	97.32	97.64	Male	Green
12	89.1	89.32	88.48	88.81	90.14	Male	Green
13	87.5	90.05	90.52	90.55	92.31	Female	Green
14	91.9	92.74	94.71	94.86	95.69	Male	Blue
15	82.9	83.05	84.5	87.25	90.04	Female	Blue
16	76.3	76.91	77.22	78.36	80.59	Male	Blue
17	87.9	89.61	89.28	89.58	92.07	Female	Blue
18	92.3	93.41	94.29	94.7	96.25	Female	Red
19	94.2	94.49	94.85	95.28	95.54	Male	Green
20	76.4	78.53	80.46	81.34	82.69	Female	Green

### 2) Start a Project



**Start by accessing your data.** To start a project, you have 3 options as shown in the image above: upload a data file, choose an example dataset, or enter data manually.

#### 1. Upload a Data File

The following are types of files that can be uploaded:

- Xcel files: .CSV & .XLSX
- SPSS: .SAV
- SAS
- STATA

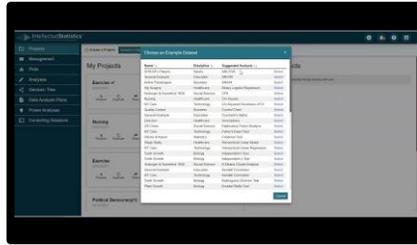
#### 2. Choose an Example Dataset

The example datasets provide the name of the data set, the discipline it falls under (ex. education), and a suggested analysis. Additionally, after an example dataset is selected, a recommendation of the variables to use for the analysis will appear.

#### 3. Enter Data Manually

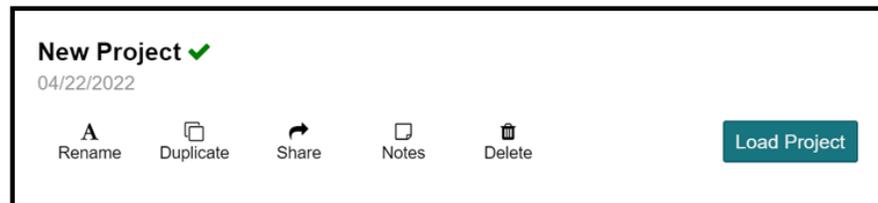
Lastly, users can manually enter data into Intellectus. If you choose the data, make sure to set up the data as described above.

Right-click the image below and open the video link that demonstrates the three ways to start a project.



### \* Helpful Project Tips

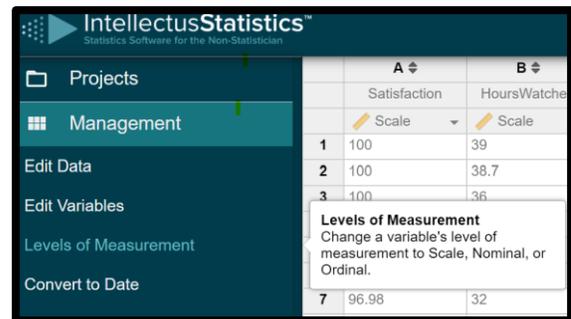
1. **Intellectus Blog** provides articles on **how to upload data** from Qualtrics, Survey Monkey, and Google forms.
2. Once you have created a project, you can rename the file by selecting the **A** icon shown in the image below. Additionally, you can share and collaborate on your projects with other Intellectus users by selecting the arrow icon shown below and entering their Intellectus subscription email.



### 3) Manage/Edit Data

The Management tab provides multiple options to edit your data. If you scroll over your each of the options with your mouse, you will see what each option does.

For example, in the image to the right we can see that selecting Levels of Measurement would allow users to change a variable's level of measurement to scale, nominal, or ordinal.

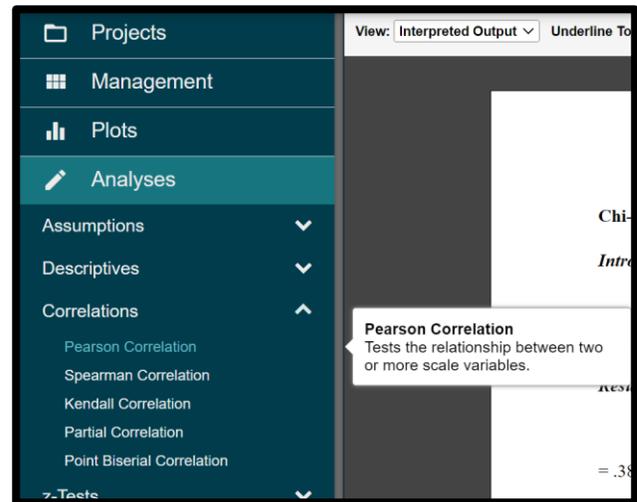


## 4) Conduct Your Analysis and/or Create a Plot

### Conduct Your Analyses

Once your data is ready, you can conduct your analyses. When you click on the Analyses tab, the Intellectus analyses options will show up below. The following are the analysis options Intellectus offers:

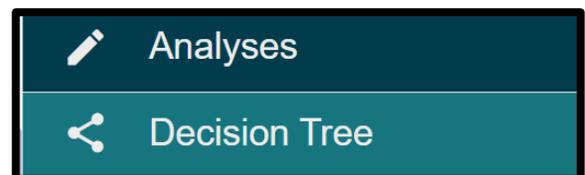
- Assumptions
- Descriptions
- Correlations
- Z-Tests
- Proportion Tests
- T-Tests
- ANOVA
- MANOVA
- Regressions
- Nonparametric
- Path Modeling Analyses
- Advanced



Moreover, once you select the type of analysis you want to run, you can click the down arrow next to it to select the specific analysis you will run.

### \* Helpful tab in Intellectus

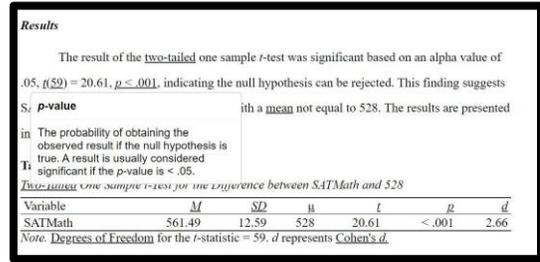
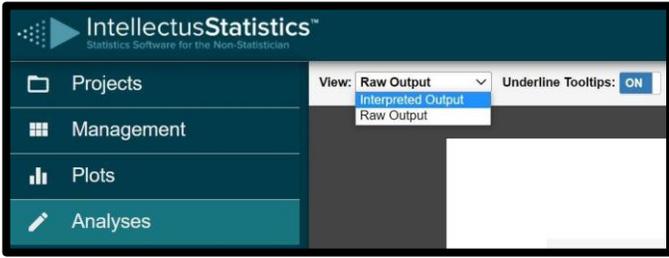
If you are unsure which analysis you should run, you can use the Decision tree tab. This tab provides a decision tree that walks you through which analysis to run based on your main objective and what variables are involved. Watch the Interactive Decision Tree tutorial video [here](#).



### \* Helpful Tips

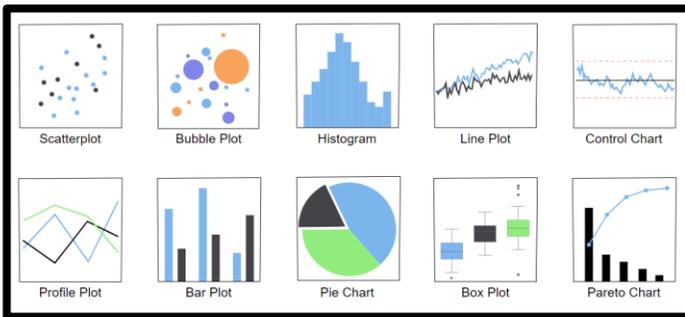
If you want to view the results of your analyses uninterpreted, you can select Raw Output as shown in the left picture below.

Additionally, Helpful tooltips are provided for many statistical terms and symbols within the analysis output. Hovering over one of these elements will display an information box containing images, definitions, or other useful information. Items that have associated tooltips can be viewed by turning on the Underline Tooltips as shown in the left image below. The right image below shows an example of a helpful tooltip.



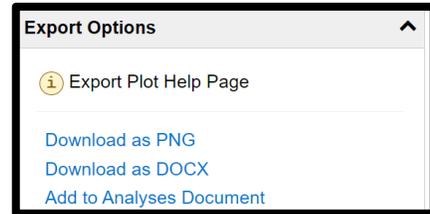
## Create a Plot

Intellectus users also have the option to create plots. You can view the available options under the Plots tab. The image below shows the various plots Intellectus offers.



## Plot export options

You can export these images separately by selecting PNG or DOCX. If you'd like to add your plot(s) to the document containing the interpreted output of the analyses run, select Add to Analyses Document.



## 5) Download Your Interpreted Data

The final step is to download your analyses document. All the interpreted output for the analyses run will be shown in the Analysis Tab as well as plots that were exported to it.

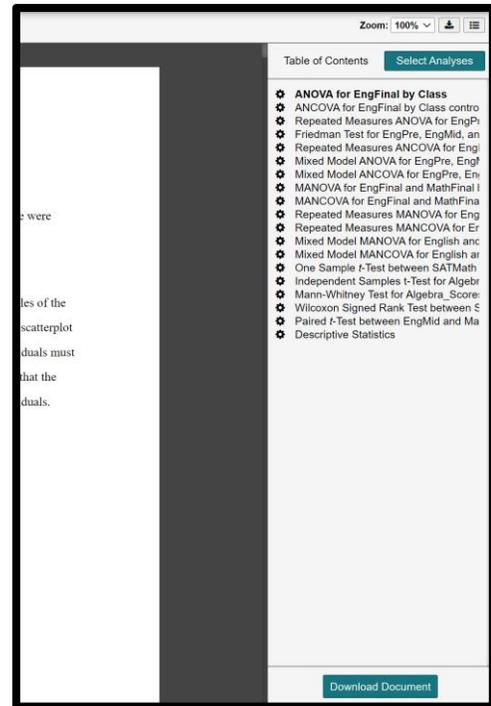
You can view all the analyses and plots in your analysis document under the Table of Contents shown in the image to the right. If you'd like to rearrange the order of your analyses/plots, you can click and hold the gear icon next to the analysis or plot and drag it to the place you'd like.

Additionally, if you need to edit or delete an analysis from your document, click on the gear icon to select one of those options.

**To download your analysis document**, click the Download Document button under the Table of Contents.

### \* Helpful Tip

Once your document is downloaded, we suggest that you edit the document and add your own voice.



**Congratulations on analyzing and interpreting your data!**

## Fundamental Intellectus Definitions

The following concepts are fundamental definitions that Intellectus users will need to know while using the application.

### 1. Independent Variable (IV)

An independent variable, also known as predictor variables, explanatory variables, regressor variables, or input variables - is a variable whose value does not depend on any other variable in the model. In some cases, independent variables are manipulated by the researcher in order to measure the effects on the dependent variable. Independent variables are a

- 2. Dependent Variable (DV):** A dependent variable, also known as predicted variables, response variables, outcome variables, or target variables - is a variable whose value is modeled to depend on one or more other variables. The dependent variable is the variable that is being tested in the model.
- 3. Covariates:** A covariate, also known as a control variable, is similar to an independent variable. Covariates are included when they are believed to influence the dependent variable but are not variables of interest in the study. They are included in order to explain more variance in the model, even if they are not n, also needed for interpretation.
- 4. Levels of Measurement:** Data are always recorded as either a numeric or categorical measurement. Levels of Measurement, also known as data types - can be classified into four distinct types, all of which are displayed below.

#### *Categorical*

##### **Nominal**

Attribute values are named (labeled/coded), e.g., hair color

#### *Categorical*

##### **Ordinal**

Attribute values can be ordered or ranked, e.g., letter grade in class

#### *Numerical*

**Interval:** A scale measurement that contains values of which the distance or difference between ranked attribute values is measurable, e.g., temperature in Fahrenheit or Celsius

#### *Numerical*

**Ratio:** A scale measurement of which the attribute value have measurable intervals and an absolute starting or zero point, e.g., weight

\* **Helpful Tip:** If you'd like further information on key concepts and definitions, you can purchase the Fundamentals of Statistics Intellectus Course on the [Intellectus course website](#).

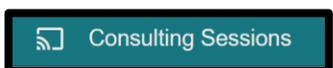
## Consulting Sessions

### Group Consulting Sessions

Intellectus provides group consulting sessions where a statistician would be available to provide guidance on your dissertation. The fee is \$50 per session. The scheduled sessions are displayed in the application under the Consulting Sessions tab. Below outlines how to register for and access the Group Consulting Sessions.

#### **Step 1:**

Click on the Consulting tab



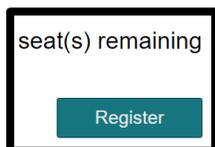
#### **Step 2:**

Purchase access to the consulting sessions by selecting Buy Now.



#### **Step 3:**

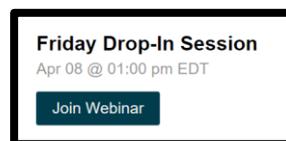
After you've entered your payment, click the Register button next to the session or session you'd like to attend. Above the button will show you how many seats are open.



#### **Step 4:**

Once you have registered, you will receive a Drop-In Session Confirmation email containing a URL to join.

Additionally, you can also attend the session by going into the consulting tab and click the Join Webinar button under the session you've registered for as shown below.



### Individual Consulting Sessions-Same Day Results

One-on-one consulting is available for students who wish to work with a statistician and complete their results immediately. To schedule an individual session to complete your results with a statistician, you can click the Schedule Now button under the Same Day Results option, found in the Consulting Sessions tab. This option begins with a free consultation to determine if your project is a good fit, and if so, we can move forward with conducting your results.

## Helpful Resources

### Video Tutorials

There are over 50 video tutorials to assist with conducting analyses and other functions in Intellectus.

### Intellectus Statistics Manual

The manual goes into detail on the user interface, projects, data management, plots, and analyses in Intellectus.

### Weekly Training Sessions

This is open to students and faculty and held every Tuesday at 1pm ET. We will give a general overview of the program, then open for questions. Please note that this session is an overview to introduce you to the program. For project specific questions, please attend the Consulting Sessions.

### Intellectus Blog

Intellectus has various blogs that provide articles on helpful topics including how to upload data from Qualtrics, Survey Monkey, and Google forms.

### Free Dissertation Webinars

Our sister company, Statistics Solutions, hosts free dissertation webinars. Our goal is to get you answers to questions that will help complete your dissertation efficiently and effectively.

### Intellectus Courses

On the [Intellectus course website](#), Intellectus users can purchase access to statistics lessons that review analyses that can be run in the Intellectus application. The courses include embedded videos, interactive lessons, and knowledge checks.

## Support Contacts

**Contact Us Form:** Submit a contact us with any questions, requests, or concerns.

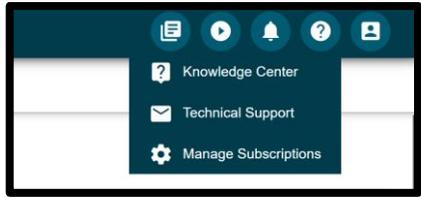
**Intellectus Phone Number:** 888-383-6639

**Intellectus email:** [info@intellectusstatistics.com](mailto:info@intellectusstatistics.com), [support@intellectusstatistics.com](mailto:support@intellectusstatistics.com)

### **Support Ticket in Intellectus**

Submit a support ticket to contact a member of our staff for assistance. We primarily help with technical issues, software errors, or basic questions on Intellectus functions. Review the steps below on how to create a support ticket.

**Step 1:** Click the question mark icon in the top right corner when logged into Intellectus. Then select "Technical Support."



**Step 2:** If you haven't created a support ticket before, click the "new support ticket" link. If you have created one before, click the "New Support Ticket" button.

