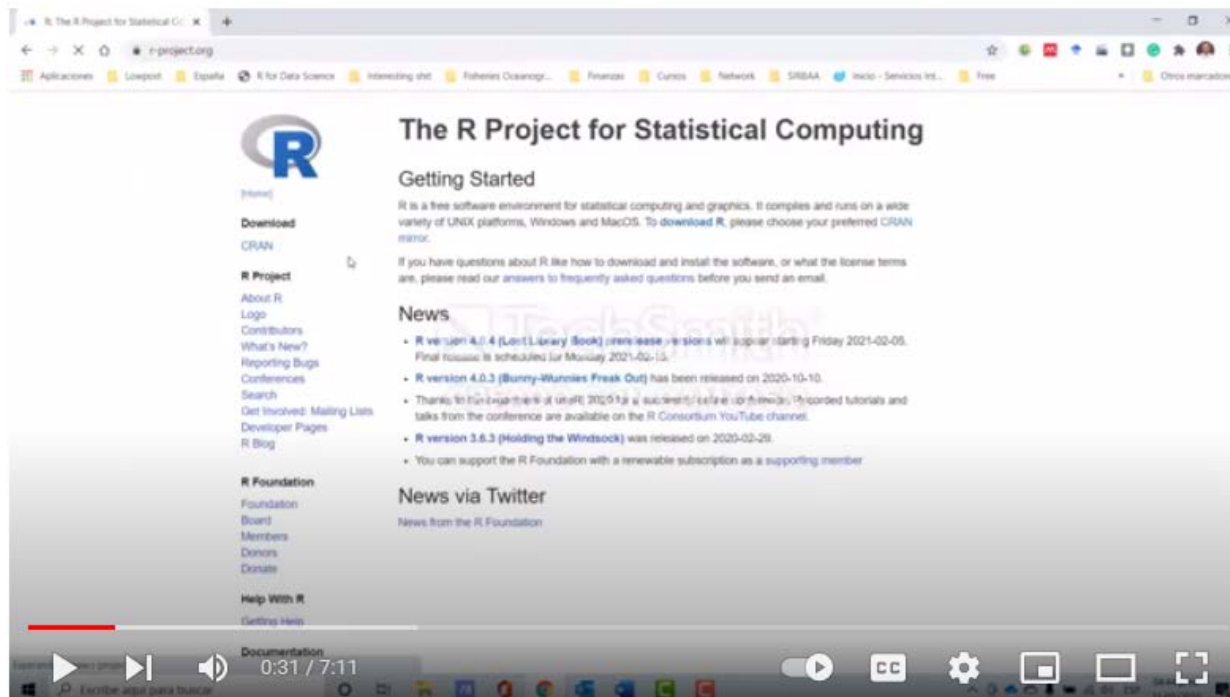


Instalar R y RStudio

Seguir las indicaciones del video:



<https://www.youtube.com/watch?v=NDJ3h961LwQ>

Entorno Rstudio:

Instalación de paquete readxl

solo se instala una vez

Dar click en Packages y seleccionar install

Install Packages

Install from: [? Configuring Repositories](#)
Repository (CRAN)

Packages (separate multiple with space or comma):
readxl

Install to Library:
C:/Users/aleiva/Documents/R/win-library/4.1 [Default]

Install dependencies

Install Cancel

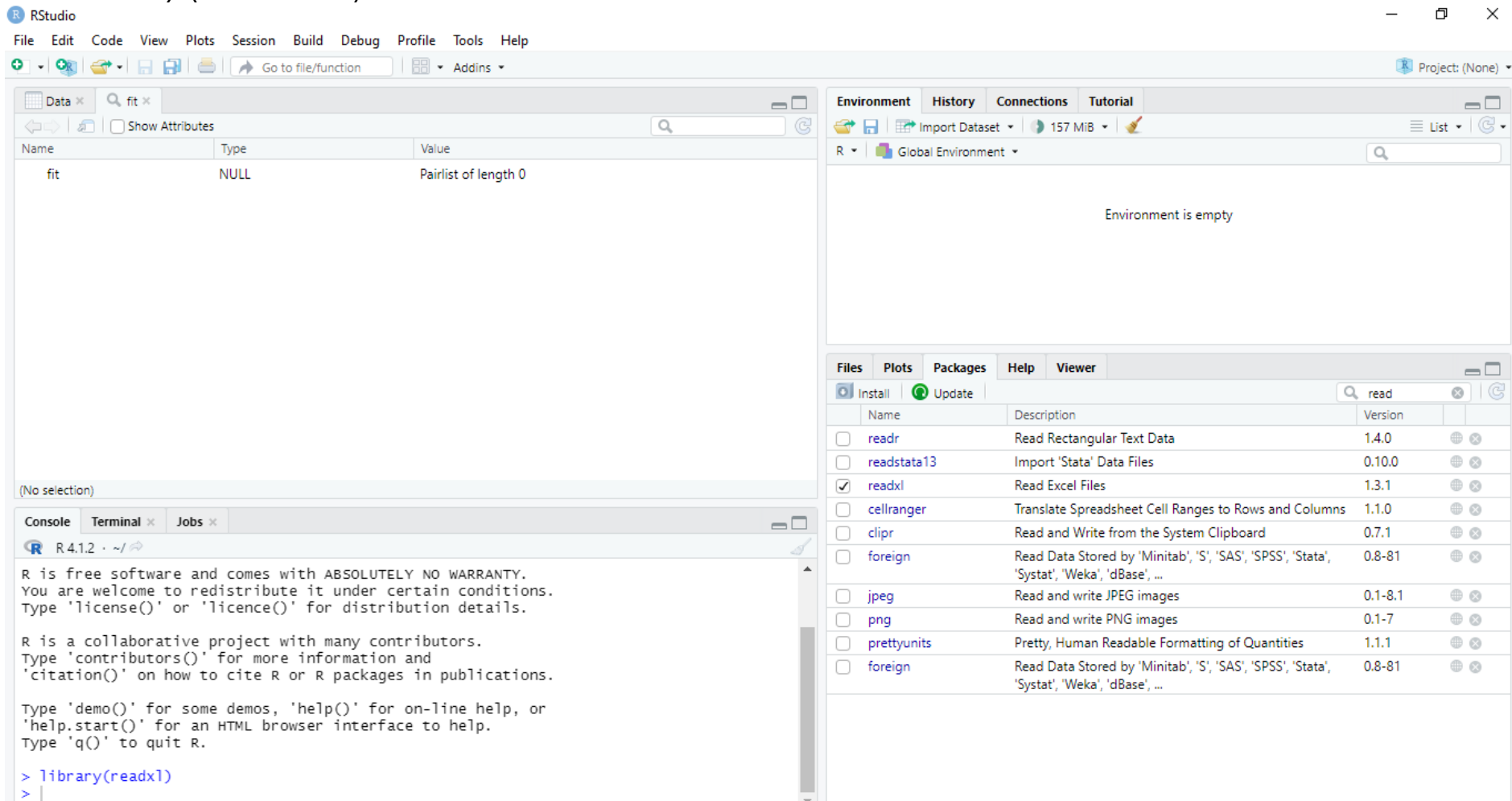
Environment is empty

Files	Plots	Packages	Help	Viewer
<input type="checkbox"/> Install	<input checked="" type="checkbox"/> Update			
Name	Description	Version		
User Library				
<input type="checkbox"/> abind	Combine Multidimensional Arrays	1.4-5		
<input type="checkbox"/> afex	Analysis of Factorial Experiments	1.0-1		
<input type="checkbox"/> apa	Format Outputs of Statistical Tests According to APA Guidelines	0.3.3		
<input type="checkbox"/> arm	Data Analysis Using Regression and Multilevel/Hierarchical Models	1.12-2		
<input type="checkbox"/> askpass	Safe Password Entry for R, Git, and SSH	1.1		
<input type="checkbox"/> backports	Reimplementations of Functions Introduced Since R-3.0.0	1.2.1		
<input type="checkbox"/> base64enc	Tools for base64 encoding	0.1-3		
<input type="checkbox"/> BH	Boost C++ Header Files	1.75.0-0		
<input type="checkbox"/> brio	Basic R Input Output	1.1.3		
<input type="checkbox"/> broom	Convert Statistical Objects into Tidy Tibbles	0.7.10		
<input type="checkbox"/> callr	Call R from R	3.7.0		
<input type="checkbox"/> car	Companion to Applied Regression	3.0-12		
<input type="checkbox"/> carData	Companion to Applied Regression Data Sets	3.0-4		
<input type="checkbox"/> caret	Classification and Regression Training	6.0-90		

Entorno Rstudio:

Activar paquete readxl

Dar click en Packages y en la lupa buscar read y hacer click en el cuadrado de readxl para activarlo y en la consola el comando `library(readxl)`



The screenshot shows the RStudio environment with the following components:

- Environment Panel:** Shows "Environment is empty".
- Packages Panel:** A search for "read" is performed. The results table is as follows:

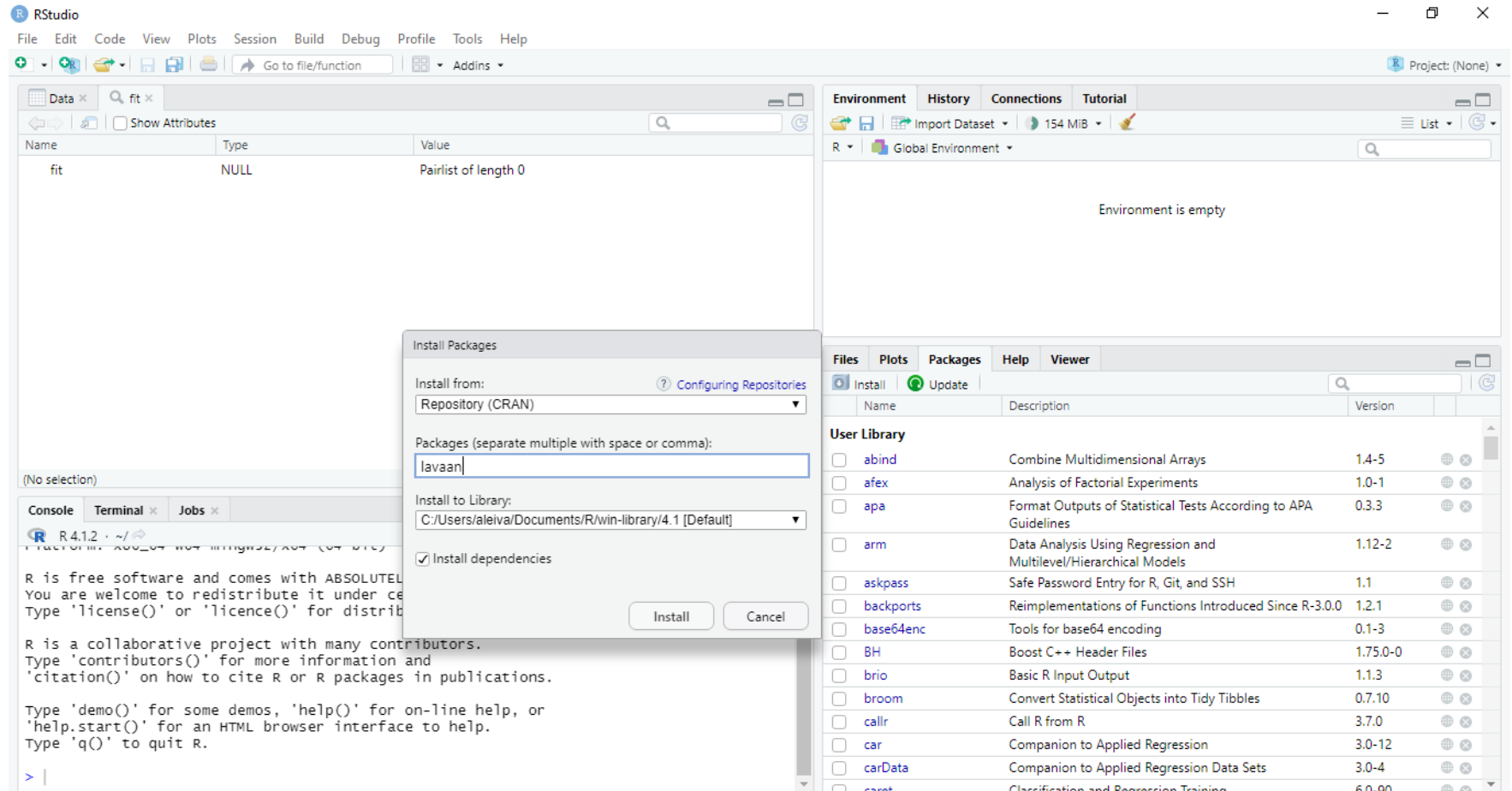
Name	Description	Version	Install	Update
readr	Read Rectangular Text Data	1.4.0	<input type="checkbox"/>	<input type="checkbox"/>
readstata13	Import 'Stata' Data Files	0.10.0	<input type="checkbox"/>	<input type="checkbox"/>
<input checked="" type="checkbox"/> readxl	Read Excel Files	1.3.1	<input checked="" type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> cellranger	Translate Spreadsheet Cell Ranges to Rows and Columns	1.1.0	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> clipr	Read and Write from the System Clipboard	0.7.1	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> foreign	Read Data Stored by 'Minitab', 'S', 'SAS', 'SPSS', 'Stata', 'Systat', 'Weka', 'dBase', ...	0.8-81	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> jpeg	Read and write JPEG images	0.1-8.1	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> png	Read and write PNG images	0.1-7	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> prettyunits	Pretty, Human Readable Formatting of Quantities	1.1.1	<input type="checkbox"/>	<input type="checkbox"/>
<input type="checkbox"/> foreign	Read Data Stored by 'Minitab', 'S', 'SAS', 'SPSS', 'Stata', 'Systat', 'Weka', 'dBase', ...	0.8-81	<input type="checkbox"/>	<input type="checkbox"/>

Terminal Panel: Shows the R version (R 4.1.2) and the command `> library(readxl)` being entered.

Entorno Rstudio:

Instalación de paquete lavaan solo se instala una vez

Dar click en Packages y seleccionar install



The screenshot shows the RStudio interface with the 'Install Packages' dialog box open. The dialog box has the following fields and options:

- Install from:** Repository (CRAN)
- Packages (separate multiple with space or comma):** lavaan
- Install to Library:** C:/Users/aleiva/Documents/R/win-library/4.1 [Default]
- Install dependencies

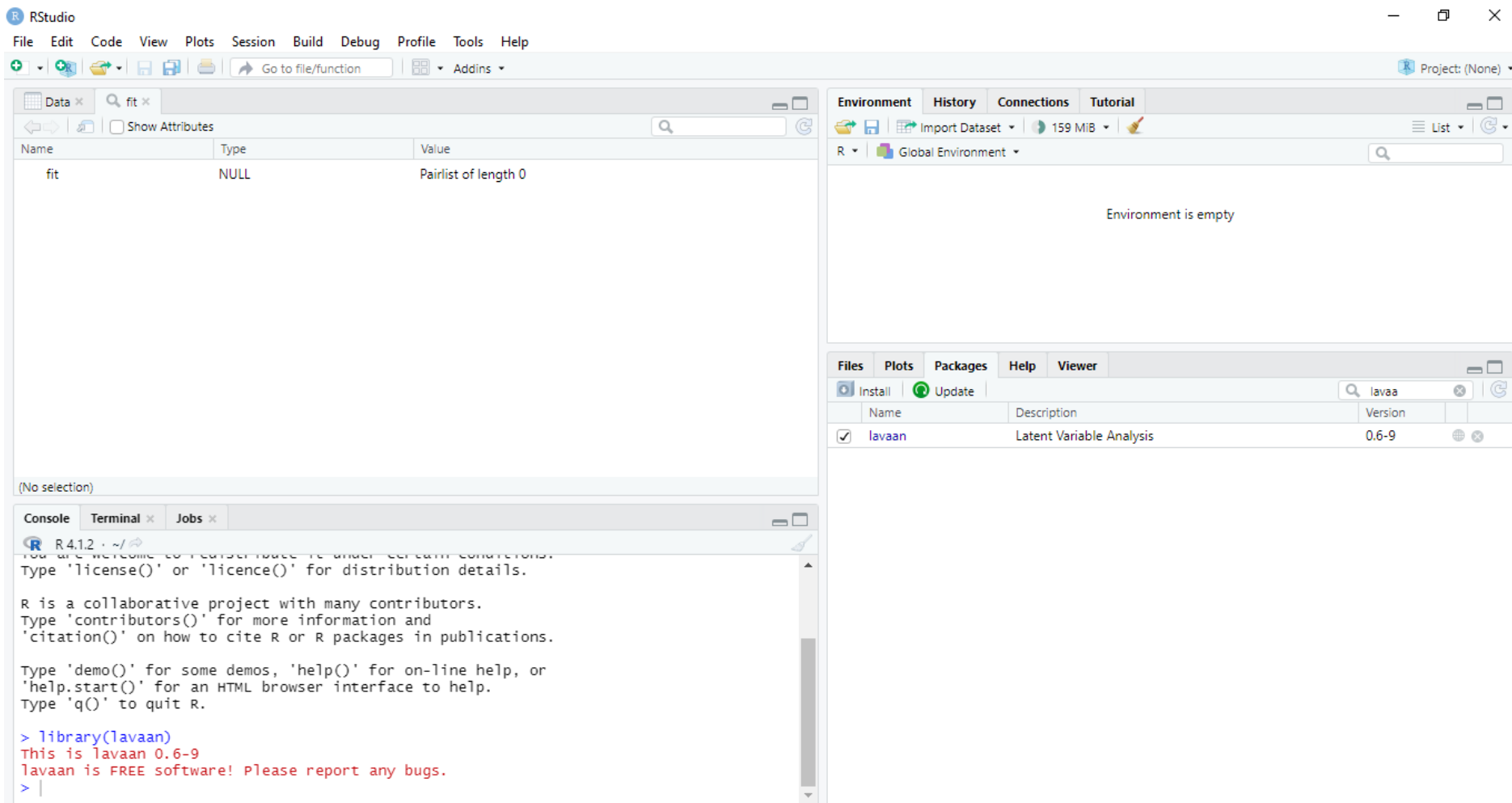
The 'Packages' pane in the bottom right shows a list of installed and available packages:

Name	Description	Version
abind	Combine Multidimensional Arrays	1.4-5
afex	Analysis of Factorial Experiments	1.0-1
apa	Format Outputs of Statistical Tests According to APA Guidelines	0.3.3
arm	Data Analysis Using Regression and Multilevel/Hierarchical Models	1.12-2
askpass	Safe Password Entry for R, Git, and SSH	1.1
backports	Reimplementations of Functions Introduced Since R-3.0.0	1.2.1
base64enc	Tools for base64 encoding	0.1-3
BH	Boost C++ Header Files	1.75.0-0
brio	Basic R Input Output	1.1.3
broom	Convert Statistical Objects into Tidy Tibbles	0.7.10
callr	Call R from R	3.7.0
car	Companion to Applied Regression	3.0-12
carData	Companion to Applied Regression Data Sets	3.0-4
caret	Classification and Regression Training	6.0-90

Entorno Rstudio:

Activar paquete lavaan

Dar click en Packages y en la lupa buscar lavaan y hacer click en el cuadrado de lavaan para activarlo y en la consola aparece el comando `library(lavaan)`



The screenshot shows the RStudio interface with the following components:

- Environment pane:** Shows "Environment is empty".
- Packages pane:** Shows the "lavaan" package installed and checked. The search bar contains "lavaan".
- Console pane:** Shows the output of the `library(lavaan)` command.

```
> library(lavaan)
This is lavaan 0.6-9
lavaan is FREE software! Please report any bugs.
> |
```

Entorno Rstudio:

Instalación y Activación de paquetes con comandos

Teclear el comando en la consola teclear solo se hace una vez

```
> install.packages(readxl)
```

```
> install.packages(lavaan)
```

Teclear en la consola se hace cada vez que se va a usar el paquete

#Llamada a software LAtent VArIable ANalysis (LAVAAN)

```
>library ("lavaan" )
```

```
>library ("readxl" )
```