

**OER Grant Report  
Jamovi Project**

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## Summary of progress

For this OER project we developed instructional material for students and departmental faculty to learn and use Jamovi (<https://www.jamovi.org/about.html>), an open source statistical software. We created guided videos and written tutorials introducing features of Jamovi required to carry out statistical tasks for courses like Psychological Statistics, Research Design, and Advanced Research Methods. The tutorials included 27 pdf documents and 27 videos. A list of these tutorials is included in Appendix A. These tutorials are housed both in the psychology department canvas site and will soon be housed with Gleeson Library's OER database. We assessed the project by asking students and faculty about their experiences with the pdf tutorials and as well as the video tutorials.

## Summary of Student Assessment ( $N = 41$ )

Questions	Mean Scores	Scale
For assignments requiring data analysis, I used the Jamovi PDF tutorials (the written form) to help me (including homework or research paper)	3.93	1 = none of the time, 5 = All the time
For assignments requiring data analyses, I used the Jamovi video tutorials to help me (including homework or research paper)	2.63	1 = none of the time, 5 = All the time
I had technical issues downloading or using Jamovi	26% said yes	Yes or No
The PDF tutorials helped me...		
Complete class assignments	4.63	1 = strongly disagree, 5 = strongly agree
Do my own statistical tests for big projects	3.96	1 = strongly disagree, 5 = strongly agree
Learn more about the statistical tests we used in class	4.37	1 = strongly disagree, 5 = strongly agree
Learn how to use Jamovi	4.56	1 = strongly disagree, 5 = strongly agree
Understand the statistical tests used in class	4.37	1 = strongly disagree, 5 = strongly agree
Feel confident in my ability to use the	4.19	1 = strongly disagree, 5 = strongly

statistical tests we learned in class		agree
Feel confident in my ability to use Jamovi again in the future	4.37	1 = strongly disagree, 5 = strongly agree
Video tutorials helped me...		
Complete class assignments	4.26	1 = strongly disagree, 5 = strongly agree
Do my own statistical tests for big projects	4.22	1 = strongly disagree, 5 = strongly agree
Learn more about the statistical tests we used in class	4.33	1 = strongly disagree, 5 = strongly agree
Learn how to use Jamovi	4.48	1 = strongly disagree, 5 = strongly agree
Understand the statistical tests used in class	4.42	1 = strongly disagree, 5 = strongly agree
Feel confident in my ability to use the statistical tests we learned in class	4.22	1 = strongly disagree, 5 = strongly agree
Feel confident in my ability to use Jamovi again in the future	4.41	1 = strongly disagree, 5 = strongly agree
The Jamovi PDF tutorials were easy to use	4.44	1 = strongly disagree, 5 = strongly agree
The Jamovi Video tutorials were easy to use	4.59	1 = strongly disagree, 5 = strongly agree

Open-ended responses to the question prompting students for comments, suggestions, or critiques of the Jamovi video and pdf tutorials indicated wide approval of the material with some students asking for interpretations of the Jamovi output to be included in the video tutorials. Interpretation of output is included in the pdf tutorial and is carried out in the classroom. From a pedagogical perspective, the video tutorials, pdf tutorial and in-class demonstrations should complement each other and at this point we have decided to keep the videos the same but emphasize the interpretation of outputs that exist in the pdf tutorials. This may be revisited in the future.

### **Summary of Faculty Assessment**

Faculty in the psychology department were introduced to the pdf and video Jamovi tutorials at the beginning of the Fall 2021 semester. While syllabi and class material were already established at this point in an end of semester assessment gauging faculty use and intentions to use the materials, 70% indicated they intend or have used the material (7 out of 10). Dr. Khan and Dr. Hitti have had great success in using the material with their students for a second semester. The tutorials have been great references for how to carry out course related analyses

and data management and have alleviated student anxiety around use of the software. Two other faculty have reviewed the material and indicated optimism for using the tutorials for their own classes, such as research design, but also for their own research.

### **Future Directions**

In the coming semester we would like to expand use of the tutorials to other courses within the department. We would like to get more feedback from faculty on their experiences with the tutorials. Other future endeavors could include asking ITS whether Jamovi can be part of the suite of software offered by USF, and thus perhaps ITS would invest in having Jamovi workshops for faculty through CRASE or other programs. In conclusion, we appreciate Gleeson Library's OER investment in this project and hope to continue improving upon the material and access to the material so that the project can have the impact it is intended to have.

## Appendix A

#	Topic
1	Introduction to Data File for Use with JAMOVİ Tutorials
2	Introduction to JAMOVİ
3	Producing R Scripts & Adding Modules
4	Opening, Creating and Importing Datafiles
5	Computing Variables
6	Recoding Variables
7	Creating Composite Scores
8	Cronbach's Alpha and Reliability Analysis
9	Splitting Ordinal/Continuous Variables (2 categories)
10	Splitting Ordinal/Continuous Variables (3 categories)
11	Reducing Number of Categories in Nominal Variables
12	Using a Filter to Select Cases
13	Descriptives and Frequency Tables
14	Frequency Graphs
15	Exploring Data - Skew & normality
16	Cross Tabs
17	One Sample t-Test
18	Independent Sample t-Test
19	Paired Sample t-Test
20	One Way ANOVA (Analysis of Variance)
21	Planned Contrasts and Post-hoc Contrasts with One Way ANOVA
22	Two Way ANOVA
23	Contrasts with Two Way ANOVA
24	Bivariate Correlation and Scatter Plots
25	Single Variable Linear Regression
26	Chi-square Tests - Goodness of Fit
27	Chi-square Tests - Test of Association

