

USING JMP TO MANAGE A LEARNING PROGRAM

Developing the Next Generation of JMP Ninjas

09 | Mar | 23

Abbott Core Diagnostics JMP Mentors

Trish Roth

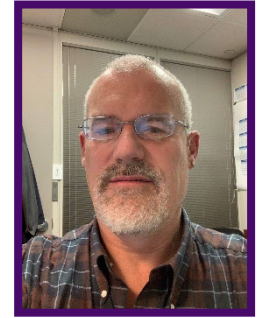
Global Technical Support Scientist & Analytics Manager



- PhD in Molecular Immunology from University of Chicago 1992
- Postdoc UCSF Research Fellow 1992 - 1997
- Technical Support Scientist 1997
- ASQ Six Sigma Black Belt 2008
- Data Analytics and Business Intelligence Reporting 2010
- JMP Training and Mentoring 2017

Jeff Pennoyer

Microbiology & Bioburden Control Manager



- PhD in Biochemistry / Microbiology from Rutgers University 1984
- Postdoc Dartmouth Medical School 1986
- Technical Support Scientist 1986
- ASQ Six Sigma Black Belt 2003
- Data Analytics 2005
- Lean Six Sigma Green Belt and Black Belt Trainer 2005

About Abbott

Global Healthcare Company

- In Business for 130+ Years
- Operating in 160+ countries
- 113K Employees around the world

- Bringing life-changing health technologies to the people who need them

Products * (varies by country)

- Cardiovascular Care
- Diabetes Care
- **Diagnostics**
 - **Core Laboratory**
 - **Molecular**
 - **Point of Care and Rapid Diagnostics**
 - **Transfusion Medicine**
- Neuromodulation
- Nutrition
- Pharmaceutical

Presentation – Two Objectives

Overview “Basic” training approach

- Use Office Tools where needed to collaborate
- Boot Camp style – Kick Start
- Leverage JMP Learning Resources
 - STIPS
 - Mastering JMP Series
 - Discovery Summit Recordings
- Provide Area Specific Examples
- Invite Colleagues as Guest Instructors

Highlight Some Selected JMP Features

- Import from Excel
- Recode
- Tabulate, Summarize
- Join
- Bar charts
- Graph customization
- Col formulas
- Value colors
- Save to Journal



Who Needs Training?

Manager Level Input

- Pain points?
 - Data presentation (visualization) capabilities
 - Capacity needs
 - A few advanced experts
 - Broad population with basics
 - Observed Skill Gaps
 - Statistical knowledge
 - Business process / product knowledge
- Willingness to allow time?
 - Funding for:
 - Licensing?
 - Travel? Training Materials? Oversight?

Who Wants Training?

Employee Level Input

- Pain Points?
 - Want to develop & contribute, need help getting started
 - See analytics as career opportunity
 - Want to be independent
 - Don't like to bother experts
 - Value learning in groups and networks
 - Want access to support for “on demand” questions
- Willingness to invest time
 - In person ? Online?
 - How will learning be applied?

Establish Training Scope Based on Collected Inputs

Define a Body of Knowledge and Skills Inventory

JMP BOOT CAMP - Getting Started

- JMP menu, Preferences, data table features
- Importing data, data types, row and column properties, tabulate and summarize
- Row search & Selection, Data Filters
- Table Joins, Recode, Distribution plots, Working with dates, Hide, Exclude and Sub setting
- Column Formulas
- Graph Builder
- Saving and Using Scripts to repeat analysis

Additional Topics

- Journaling your results
- Hypothesis testing
- Bivariate regression
- Distributions
- Capability analysis
- Control Charting
- ANOVA
- A “taste” of scripting
 - enhanced log / workflow builder
- Area examples

Decide on method(s) to deliver training

Tailor approach based on group size, location and interests/ needs

- In person – dedicate a series of full or half days, gather in a conference center or learning lab
 - Onboarding new employees
- Series of online meetings – virtual conferencing
- Informal = Lunch and Learns, Team meetings or User Groups/ Communities
 - Short bursts on selected topics
- Fully independent – point learners to Learn to Use JMP Resources
- Engage with a Learning and Development Team
 - Establish formal requirements with project work or analysis milestones
- Plan for organizing and post information
 - Leverage Internal SharePoint - See example, next slides

JMP Track Calendar 2022

Students must obtain a JMP License and have JMP installed PRIOR to the course.

Class will use JMP 15 and 16.

See **UPDATED** Instructions to [obtain JMP license](#).

JMP Track Important Dates

+ Add event

JUN 2	JMP Intermediate – Session 1 Thu, Jun 2, 9:00 AM
JUN 14	JMP Beg Homework 1 Due Tue, Jun 14, 6:00 PM
JUN 21	JMP Beginner – Session 2 Tue, Jun 21, 9:00 AM
JUN 21	JMP INT Homework 1 Due Tue, Jun 21, 6:00 PM

JMP Beginner Level

New user, Limited Experience (<1 year) or Infrequent user

[JMP Beginner Session Summary](#)

[Orientation Recoding](#) - [May 4th/5th Presentation](#)

1. *May 26 - Boot Camp Part 1* [Recording](#), [Files](#)
2. *Jun 21 - Boot Camp Part 2* [Recording](#), [Files](#), [JSON](#)
3. *Jul 20 - GraphBuilder, SpecSetting:* [Recording](#), [Files](#)
4. *Aug 24 - JMP Statistical Methods:* [Recording](#), [Files](#)
5. *Sep 26 - More Working with JMP:* [Recording](#), [Files](#)

October - Office Hours, Wrap Up

Congratulations 2022 BEG Graduates

2 Required: [Exploratory Data Analysis](#), [Decision Making with Data](#)

OneDrive Link - [OneDrive Link](#) - [Student Access to upload](#)

JMP Intermediate Track

JMP Users (1 year +) looking to expand skills

Students will be asked to share examples as part of the sessions.

[JMP Intermediate Session Summary](#)

[Orientation Recording](#) & [May 9th Presentation](#)

1. *June 2 - Accelerated Boot Camp,* [Recording](#)
2. *June 29 - JMP Statistical Methods 1,* [Recording](#), [Files](#)
3. *July 27 - JMP Statistical Methods 2,* [Recording](#), [Files](#)
4. *Aug 17 - Working with JMP: Capability Analysis, Graph Builder, Abbott Use case,* [Recording](#), [Files](#)
5. *Sep 28 - Abbott Use Cases, PSMA Addin, C Charts Building a Script from Log,* [Recording](#), [Files](#)

October - Office Hours, Wrap Up

Congratulations 2022 INT Graduates

3 Required: [Exploratory Data Analysis](#), [Decision Making with Data](#) Plus 1 additional - Learner's choice



JMP Class Stream Channel - class recordings

(Video Library of Meeting Recordings)

Quick Links

Top 5 Countdown: Data preparation is faster, easier, and...	Overview JMP Education
Statistical Thinking (STIPS) - Free Online Statistics Course - JMP	JMP Online help (16.2.0)
JMP User Community	Introduction to the JMP Scripting Language
Statistics Knowledge Portal Introduction to Statistics - JMP	Home JMP Discovery Summit

JMP Track

[See all](#)

+ New ▾ ↑ Upload ▾ 🗪 Edit in grid view ⋮ ⋮ JMP ▾ ⓘ

Name ▾	Level ▾	Modified ▾
JMP Beginner Homework3	Basic	August 16, 2022
4_JMP Intermediate Session 4 (Au...	Intermediate	August 16, 2022
5_JMP Beginner Session 5 (Sept la...	Basic	September 23, 2022
JMP Intermediate Homework2	Intermediate	August 16, 2022
5_JMP Intermediate Session 5 (Se...	Intermediate	August 16, 2022

Track SME's

(Additional colleagues not shown)

Top 5 Count down
<https://www.youtube.com/watch?v=ECwK3ij2fPQ>



Roth, Patricia E
Prin Spec Systems Integration



Pennoyer, Jeffrey D
Manager Environment Monitor and Mic...

Define Learning Levels

Beginner - Limited (<1 year) or no experience with use of JMP

Training covers basic functionality and application to data sets or business problem their area. Installation of the appropriate software is the responsibility of the learner.

Intermediate - Assumes some experience (1+ year). Experience may be limited to a subset of features and functions, learner seeking to improve proficiency.

Learner to submit example of use PRIOR to start of course. May be asked to demonstrate use to other participants. (Teach backs)

Advanced – Not addressed here, recommend small group or 1-1 mentoring session, typically project based or application, add-in or script building

Recruit Learners via Survey and Email Cascades

Analytics Learner Nomination Form

The survey will take approximately 4 minutes to complete.

202x Learning Tracks:
JMP

Registration Due Date: March 202x
Program timeframe: April to October 202x

Reminder:

- o Learners should be prepared to utilize the tool regularly in their job role and do homework
- o Learners are also strongly encouraged to participate in presentations at the end of the learning track.
- o Recommended that Learner put participation into Development Plan or Performance goals
- o Manager's agreement is needed to participate in this program

Course Information: <https://community.jmp.com/t5/Learn-JMP/ct-p/learn-jmp>

Beginner - Limited (<1 year) or no experience with use of selected tool, track will cover basic functionality and application to data set or business problem their area. Installation of the appropriate software is the responsibility of the learner.

Intermediate - Assumes some experience with the tool (1+ year). Experience limited to a subset of the features and functions, learner seeking to improve proficiency. Learner to submit example of use PRIOR to start of course. May be asked to demonstrate application of the tool to other participants.

PLAN for Information Collection

Provide response choices to limit variation

Limit response window

- Discrete or continuous enrollment?
- Program time frame?

Recruit Learners via Survey and Email Cascades

Hi, Patricia. When you submit this form, the owner will see your name and email address.

* Required

1. Learner's Name (Please use Surname/ Last Name, First Name) *

Enter your answer

2. Learner's UPI *

Enter your answer

3. Learner's email *

Enter your answer

4. Manager's Email *

Enter your answer

5. Learner's location *

Dallas

Hong Kong

Japan

Learner and Manager Identifiers

Locations (time zone considerations)

- Used for communication
- Agreement important for full participation

Recruit Learners via Survey and Email Cascades

Organization/Department Info

6. Learner's functional organization *

Please select the option that most closely aligns with your function

- Commercial or Service
- Distribution, Logistics, or Supply Chain
- Operations – Engineering or Systems Integration
- Operations – Instrument Manufacturing

Organization or Functional area useful for developing case studies and area specific examples

Recruit Learners via Survey and Email Cascades

Why Participating?

7. What skill set gap are you addressing (i.e. identify the business need)? *

Can make multiple selections

- Want to tell better stories with data
- Need this tool or method directly in my current role and daily job responsibilities
- Want to expand my skills in this method/ tool in order to deliver work efficiency improvement
- Want to expand my skills in this method/ tool to deliver an innovation opportunity
- Want to use this tool to automate a work process that is done manually today
- Other

Understanding **WHY** is important for adult learning

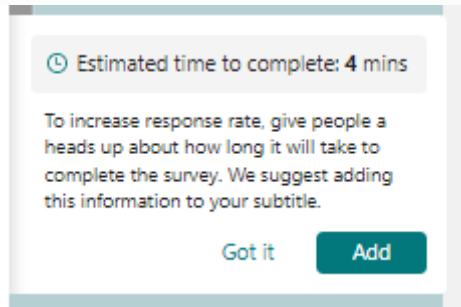
*Note Multi Response questions handled easily in JMP 17 (coming up in demo)

Recruit Learners via Survey and Email Cascades

Other Interests / Needs

10. Are there additional topics that you might be interested in? SME's may do a future course or seminar if sufficient interest.

- Design of Experiments
- R/ Python
- JMP Scripting
- Power Platform Applications (Power Automate, etc.)
- Microsoft O365, Teams, SharePoint & Excel
-



Use survey to capture additional information

Keep to a reasonable number of questions

User needs to complete quickly – within a few min

Planning is Done - On To Delivery and the JMP Fun!

- Who registered for your training????
- Don't analyze using spreadsheets
- Use JMP to review and organize survey responses and participant information

- Step 1 get data into JMP - I will be using JMP 17.0.0 (Standard), JMP 15/16 work too
 - Copy and paste (least recommended)
 - Drag file over JMP icon (fun little trick), invokes import wizard
 - JMP Import Wizard - most reliable

 - Survey Responses file (*1_Registration_Form.xlsx*)

Outline of Demo – JMP Journal and Files Provided

1. Import registration information
 - Create Learner List – clean up imported info and enrich
 - Create graphics and summaries to understand group demographics
 - Subset by level
 - Add Course requirements
 - Update/ Track progress after each session and with student submitted info
 - Attendance reports from online meetings
 - Online surveys - homework exercises
 - Score Completion
 - Recognize student accomplishments
 - Certificates, Congratulations Email (cc Manager), Student Show Case

TRANSITION TO JMP

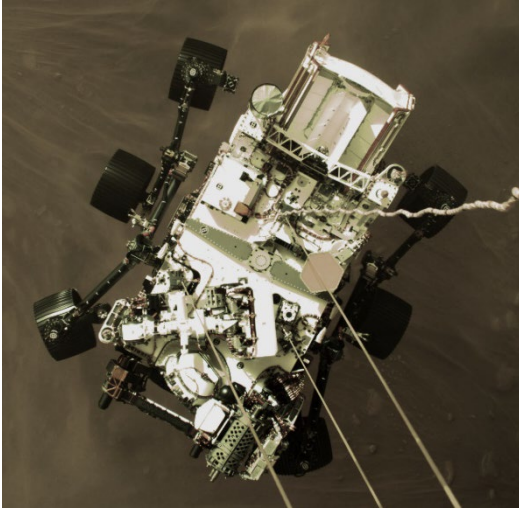
JMP Journal and Included Files

Wrap Up



- Hone your JMP Ninja skills by applying functionalities across
 - Table
 - Col
 - Graph Builder
- Data Preparation is essential to analytics, these skills will be utilized
- Shows new user's capabilities to get them excited
 - Transition from “cell” based thinking to “column” and data structure understanding
- A lot of power and benefit achieved ahead of modeling and predicating
- Get Beginners and Advanced Practitioner in the same “playground”

Thank You Now “Dare Mighty Things”



Credit: NASA/JPL-Caltech

Managing a JMP Learning Program with JMP

Abstract

- Many know JMP as a powerful tool for analytics and modeling and aspire to leverage JMP's advanced capabilities to champion improvements and business understanding. It can take time and domain experience to achieve a high level of proficiency. Don't dismay; we all start somewhere! Even at modest experience levels, value can rapidly be achieved using JMP fundamentals. Fundamentals can be quickly propagated across an organization to seed and inspire a culture of analytics. Hear how our team has integrated offerings from JMP education in a JMP "boot camp" format. The faster an organization can establish basic proficiency in JMP, the sooner it can benefit from that investment. Additionally, having a shared platform for both basic and advanced analytics creates a collaborative community, increases self-sufficiency, and provides a learning path to foster employee development. While sharing our training approach, we will demonstrate foundational JMP features, including data filters, tabulate, summary, recode, column formula, and column properties functions to track student progress. See JMP in action as we highlight methods to construct, customize and journal graph builder visuals in ways that entice spreadsheet users to make the "JMP" to becoming JMP data ninjas.

End of Slides