

## Exercise 3: Using Recipes

**Time:** 20 minutes

**Goal:** Calculate total scores automatically and export analysis-ready data to SPSS

**MRI-LAB GRAZ**  
PRISM Studio

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### Recipes & Scoring

**What are recipes?** Recipes are JSON files that define how to score and process your survey data automatically. They extract computed scales/subscales from raw survey responses and export them in analysis-ready formats (SPSS, R, CSV, Excel).

**How it works:**

- Recipes are automatically discovered from `code/recipes/(modality)/` (project-local)
- Falls back to global `official/recipes/(modality)/` if no project recipes are found
- Processing runs on your current project's dataset
- Scored outputs are saved to `derivatives/(modality)/`

**No project loaded.** Please select or create a project from the Projects page to use recipes.

#### Process & Export

Modality: Survey

Output Format: CSV (includes metadata & Jamovi R-Helper)

Recipe Filter (optional): e.g. ads,psqi  
Leave empty to run all matching recipes.

File Output:  
☒ Separate file per survey  
☐ One combined file (all surveys)

Sessions:  
☒ All sessions (default)

Language: English

Layout: Long (one row per session)

Figure 1: Exercise 3 UI (Light Mode)

## What You'll Learn

By the end of this exercise, you will:

- Understand the recipe system for automated scoring
- Apply recipes to calculate total scores and subscales
- Export data to SPSS (.save) with full metadata
- Generate codebooks and methods text automatically
- Open and verify the results in SPSS/Jamovi

## Starting Point

**You'll use the dataset you completed in Exercise 1:**

- Location: `../exercise_1_raw_data/my_dataset/`
- Status: Properly structured.

**Requirements:**

- Your dataset must be valid.
- JSON sidecars should ideally have metadata, but the recipe can work with raw columns too.

## What Are Recipes?

**Recipes** are JSON files that define scoring logic: - Which items to sum/average  
- How to reverse-code items (if needed) - How to calculate subscales - Clinical cutoffs for interpretation

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## Your Task

Apply the Wellbeing and Fitness recipes to your dataset to: 1. Calculate the wellbeing total score (sum of 5 items) 2. Calculate the fitness composite if you converted the biometrics data 3. Export results to SPSS format

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## Step-by-Step Instructions

### Step 1: Verify Recipe File Exists

The recipes are located in the workshop materials, e.g. `examples/workshop/exercise_3_using_recipes/recipes`

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### Step 2: Open Recipes & Scoring Tool

1. Open **PRISM Studio** (<http://localhost:5001>)
  2. Click **“Recipes”** (or **“Recipes & Scoring”**, depending on your build) in the navigation menu
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### Step 3: Select Your Dataset

**Dataset Folder:** 1. Click **“Browse”** button next to “PRISM Dataset Folder”  
2. Navigate to: `examples/workshop/exercise_1_raw_data/my_dataset/` 3. Select this folder

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### Step 4: Configure Recipe Settings

**For Wellbeing Survey:**

- **Modality:** Select Survey
- **Recipe:** Select wellbeing
- **Output Format:** Select SPSS (.save) or Excel (.xlsx)
- Click **“Run Scoring & Export”**

**For Fitness Data (Bonus):**

- **Modality:** Select Biometrics
  - **Recipe:** Select fitness
  - Click “Run Scoring & Export”
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**Step 5: Verify Results**

Check your output folder (usually the same as the dataset or a **derivatives/** subfolder): - You should see `wellbeing_scores.save` (or `.xlsx`) - Open it and check the new columns (e.g., `wellbeing_total`) - Notice that the variable labels and value labels are preserved!

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**What Just Happened?**

**You went from raw data to analysis-ready results in minutes!**

Instead of manual summing in Excel, you used a **machine-readable recipe** that: - Summarized your data automatically - Preserved all your hard-earned metadata - Created a format ready for statistical software - Documented exactly how the scores were calculated

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**Next Steps:** Now that you’ve processed your data, let’s learn how to create your own survey templates from scratch!

**Ready for Exercise 4?** → Go to `../exercise_4_templates/`