PD Infrastructure - Google Apps Script Professional Learning Framework

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Google Apps Script Series Slide Deck - Live Video Meetings

Use this slide deck if you are meeting in the Google Meet for the live video sessions.



Google Apps Script Series Slide Deck - Independent Track

Use this slide deck if you have missed a live meeting, or you are taking the series at your own pace.



PD Agenda Session 1

Let's review the PD Session 1 Agenda
90 Minute Session

Agenda - Session 1 (Agenda information is subject to updating)			
Timeline	**Topic**	**Resources**	**Notes**
5 minutes	Review of the Agenda & The Purpose for Today's PD Session.		Share and discuss the Agenda for today's training plan.
12 minutes	Who's in the Room	Google Meet Breakout Rooms	Break off into breakout rooms and discuss the following: *Tell us about yourself and your district. *What's your experience and comfort level with today's topic?

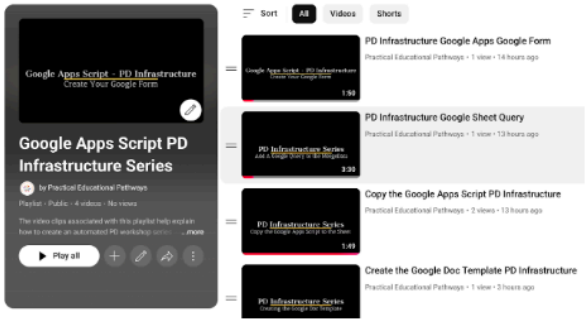
8 minutes	Review our Resources	PD Infrastructure Dir… https://www.practicaleducationalpathways.com/google-services/sign-up-for-the-google-pd-infrastructure-professional-learning-series	Review the Support Documents from the Practical Educational Pathways Website.
15 minutes	Let's Start with the Big Picture: How do all the pieces fit together?	Review Notebook LM Mind Map	**Workflow and Process Steps** The automation process follows a logical sequence: **Form Creation:** Create a Google Form to collect participant registration data. **Spreadsheet Setup:** Develop a Google Sheet that receives form responses ("form data") and then uses a QUERY function to populate a separate "merge data" sheet, organizing and enhancing the data. Manually add Google Meet URLs to the merge data sheet. **Doc Template Creation:** Design a Google Doc template with curly-braced placeholders for dynamic content. **Apps Script Integration:** Copy and paste the pre-developed Google Apps Script into the Google Sheets script editor. **ID Configuration:** Update the script with the correct Google IDs for the template document and the Google Drive folders where the generated documents and PDFs will be stored. **Running the Script:**Authorize the script when prompted. Run the **"workshop mailmerge"** function to generate personalized Google Docs for each participant. Run the **"create the PDF"** function to convert the Google Docs into PDFs. Run the **"email the PDF"** function to send the PDFs to participants. The system allows for rerunning processes by clearing relevant cells (e.g., document/pdf links or email sent status).
10 minutes	Google Form Creation & Setup Google Spreadsheet Setup & Query Configuration	Make a Copy of the Participant Copy Form Make a Copy of the Participant Responses Google Sheet Make a Copy of the Participant MailMerge Google Doc Template Review the Print Directions for Session 1	Participants will need to make a copy of the documents that we'll be using during Session 1. Participants will need to link the copied spreadsheet to the copied Google Form. Discuss the reasoning behind the Google Query, and the MergeData sheet in the Google Sheet. Review the connection between the MergeData Sheet & the MailMerge Google Doc Template.

10 minutes	Participants Will Make Their Document Copies & Link The Google Sheet to the Form	Use the Copied Resources	Break off into breakout rooms to complete the task. The breakout rooms will allow folks to support each other to make the copies, and connect the spreadsheet.
25 minutes	Redesign the Form & Google Doc Per Participant's Needs		Break off into breakout rooms to complete the task. The breakout rooms will allow folks to support each other. Have a participant or two share what they've done during the work time.
2 minutes	Let's Wrap Up and Review		Next steps in the series: Scripting & Automation
3 minutes	Session Feedback Form	https://forms.gle/LhmtFXGVcnN5yqkb6	Please fill-out the survey to help us ensure that we're meeting the needs of our participants.

Access to Support Materials for PD Series

Click the image below to access all of the support materials.

Resource YouTube Playlist



Shared Google Drive Support Documents

TITLE	LA
Google Apps Script Resources	Jul
Google Document Examples - Templates	Jul
Print Direction Resources	Jul

See the session dates below.

- **Session 1: Data Collection and Preparation**
  This session focuses on building a Google Form to register participants for your professional development workshop. You will prepare the Google Sheet that collects responses, create a Google Doc template for the mail merge, and learn to use the QUERY function to organize the registration data.

  Session 2: Scripting and Automation
  In this session, you will build the core automation tools. Key tasks include:
  - Reviewing the individual components of a Google Apps Script.
  - Creating a custom user menu in Google Sheets.
  - Writing the main mail merge function and its helper functions.
  - Generating personalized PDF documents from your template.
  - Automating the process of emailing the PDFs to registrants.

  Session 3: Integration, Testing, and Enhancement
  This final session will focus on putting all the components together. You will test the complete end-to-end workflow by sending a final registration document to a test participant. You will also learn to use Google's AI tool, Gemini, to modify and enhance the Google Apps Script for more sophisticated functions.

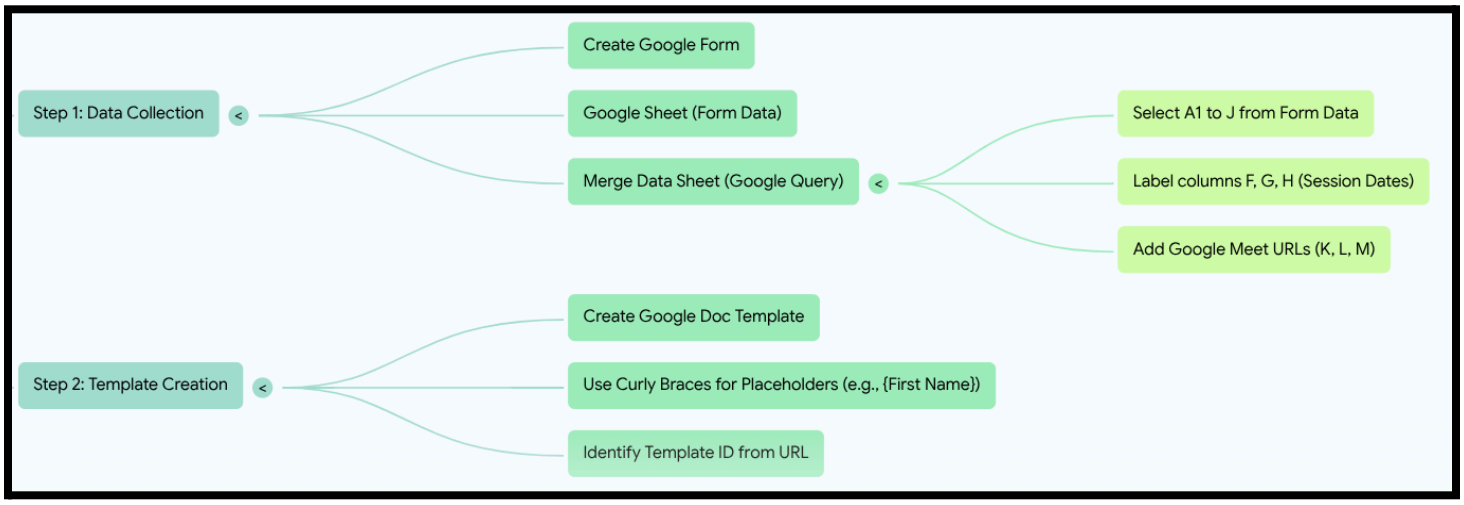
Indicate your ability to attend each of the sessions listed below. Each virtual session will take place at 12:00 PM EDT. You will receive a link for the Google Meeting. *

Session 1: Data Collection

Let's Build Our Form, Connect the Google Sheet, and Use Google Query to Create A MergeData Sheet

MindMap of Session 1

The MindMap below illustrates the major concepts of session 1.



Print Directions To Build the Form, the Sheet, and Put It All Together

Click on the illustration above to access the print directions.

Google Apps Script & PD Infrastructure: Creating and Connecting the Google Form, Google Spreadsheet, and the Google Doc Template

This set of directions is provided to assist Google Workspace users to create an automated system to process participants, agenda, and emails. The purpose of this document is to:

1. Copy, Create, and/or Revise a Google Form for the User Input Process.
2. Configure a Google Spreadsheet that has been Copied, Created, and/or Revised.
3. Copy, Create, and/or Revise a Google Doc that will serve as the template for the MailMerge function.

A set of complete video and print resources can be found on the Practical Educational Pathways website. Users should make a copy of each document so it can be edited in their Google Drive or a Shared Drive.

participants.

Video Illustrating How to Configure Google Drive & Copy the Files

This 4:24 minute explains How to Configure Google Drive & Copy the Form, Spreadsheet, and Doc



Configure Copied Documents for PD Infrastructure

Video Illustrating the PD Infrastructure Google Apps Form

This 1:50 minute explains the Google Form to collect participant data.



PD Infrastructure Google Apps Google Form

Video Illustrating the PD Infrastructure Google Sheet

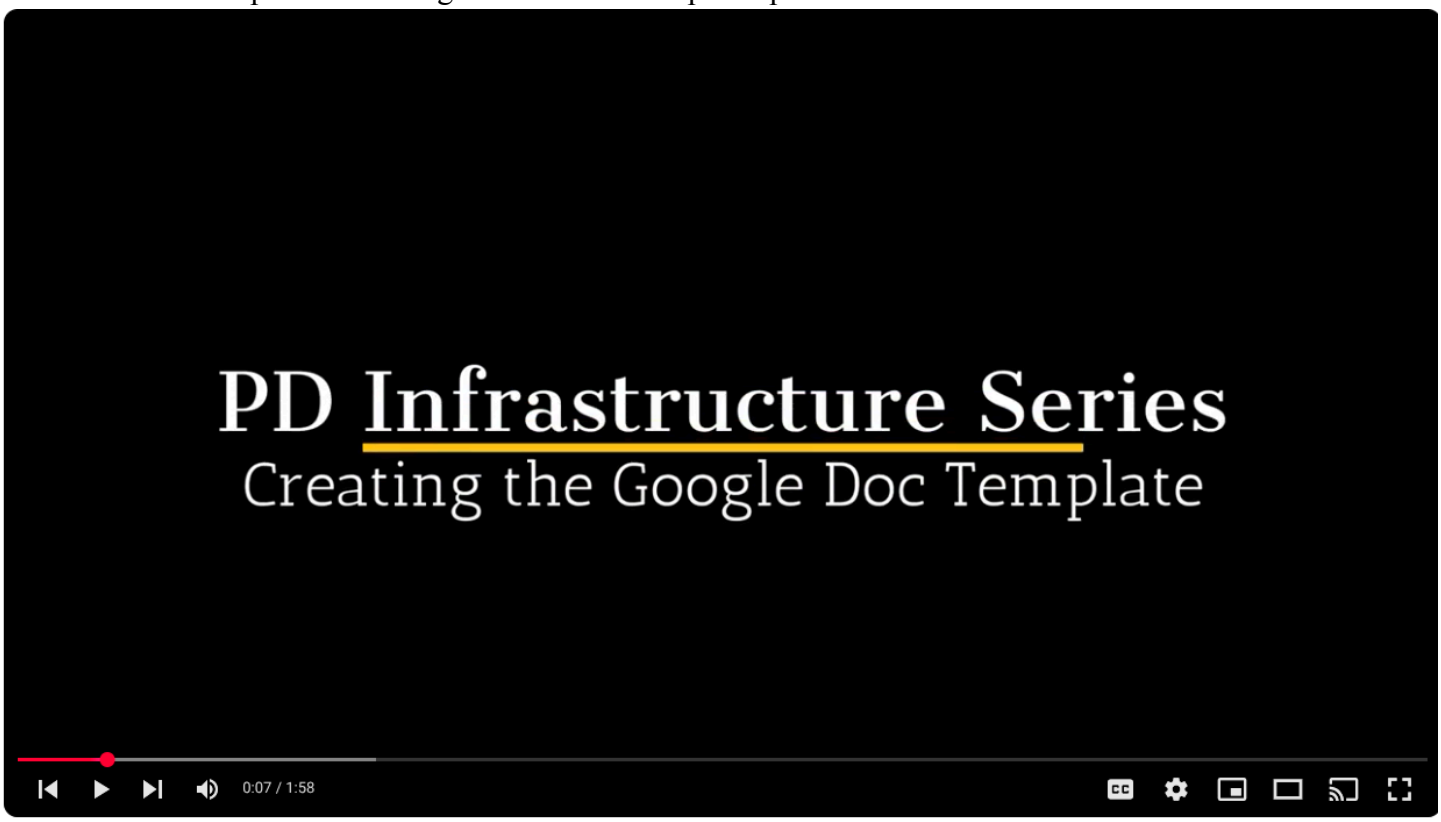
This 3:30 minute explains the Google Form to collect participant data.



PD Infrastructure Google Sheet Query

Video Illustrating the PD Infrastructure Google Doc Template

This 1:59 minute explains the Google Form to collect participant data.



Create the Google Doc Template PD Infrastructure

PD Agenda Session 2

Let's review the PD Session 2 Agenda
90 Minute Session

Agenda - Session 2 (Agenda information is subject to updating)			
Timeline	**Topic**	**Resources**	**Notes**
5 minutes	Review of the Agenda & The Purpose for Today's PD Session.		Share and discuss the Agenda for today's training plan.
5 minutes	Who's in the Room	Google Meet Breakout Rooms	Break off into breakout rooms and discuss the following: *Tell us about yourself and your district. *What's your experience and comfort level with today's topic?
2 minutes	Review our Resources	Shared Google Drive Folder Google PD Infrastructure Professional Learning Series Website	Review the Support Documents from the Practical Educational Pathways Website.
15 minutes	Overview of Session 2	Review Notebook LM Mind Map Review the Extension Menu, the Google Apps Script, & How to Generate Custom User Menus	Session 2: Scripting & Automation: Covers reviewing Google Apps Script components, creating custom user menus, writing mail merge functions, generating personalized PDFs, and automating email distribution.
15 minutes	Access the Google Apps Script & Basic Overview The 3 important Google Ids in the Script: 1. The Google Doc Template 2. The Google Doc Template Participant Info Folder 3. The Participant PDF folder	Copy the Google Apps Script Copy and Paste into The Google Apps Script Editor Change the Google IDs YouTube Video	Review the 3 important Google IDs used in the Google Apps Script. Review the Google Apps Script in Step 2 of the MailMerge function. 1. Review the Google Doc Template ID. 2. Review the Google Doc Template Participant Info ID in Step 2 of the MailMerge function. Review the Google Apps Script in the CreatePDFs function. 3. Locate the Participant PDFs folder ID.

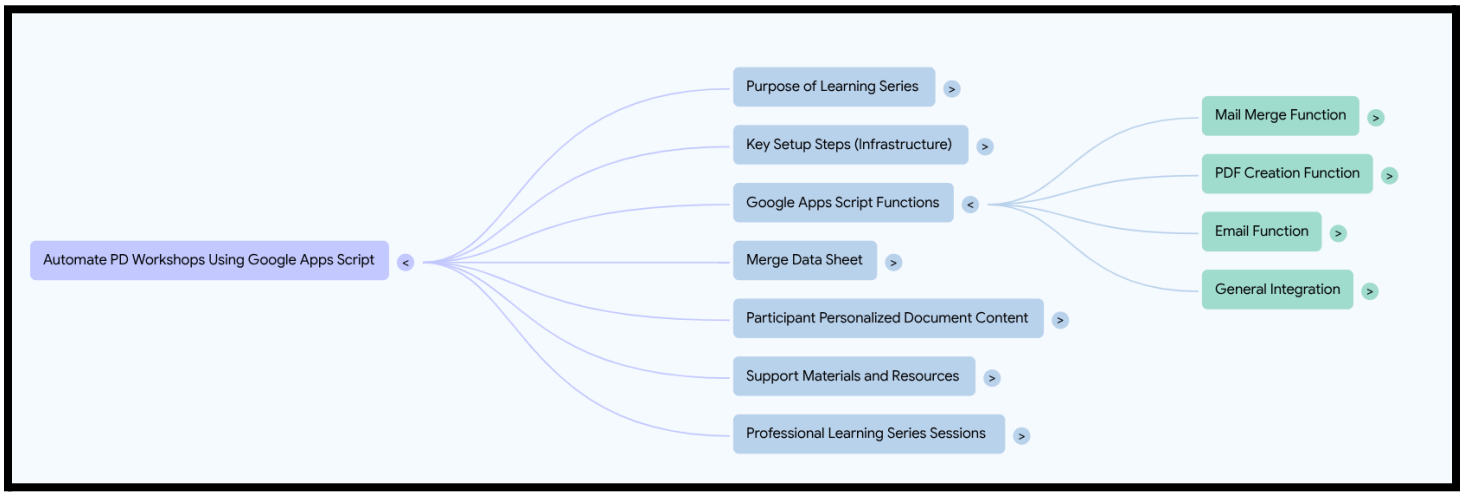
18 minutes	Participants will work in their own Google Scripts and Make Changes to the Document and/or Folder IDs.	The MailMerge function YouTube Video The CreatePDFs function YouTube Video The EmailPdfs function YouTube Video	Break off into breakout rooms to complete the task. The breakout rooms will allow folks to support each other to make the copies, and connect the spreadsheet.
20 minutes	Redesign the Form & Google Doc Per Participant's Needs		Break off into breakout rooms to complete the task. The breakout rooms will allow folks to support each other.
5 minutes	Let's Wrap Up and Review		Next steps in the series: Using Gemini to Edit, Revise, and Enhance Your Google Apps Script
3 minutes	Session Feedback Form	https://forms.gle/LhmtFXGVcnN5yqkb6	Please fill-out the survey to help us ensure that we're meeting the needs of our participants.

Session 2: The Google Apps Script

Let's Review the 3 Functions in the Google Apps Script: The MailMerge function, The CreatePDFs function, and The EmailPdfs function

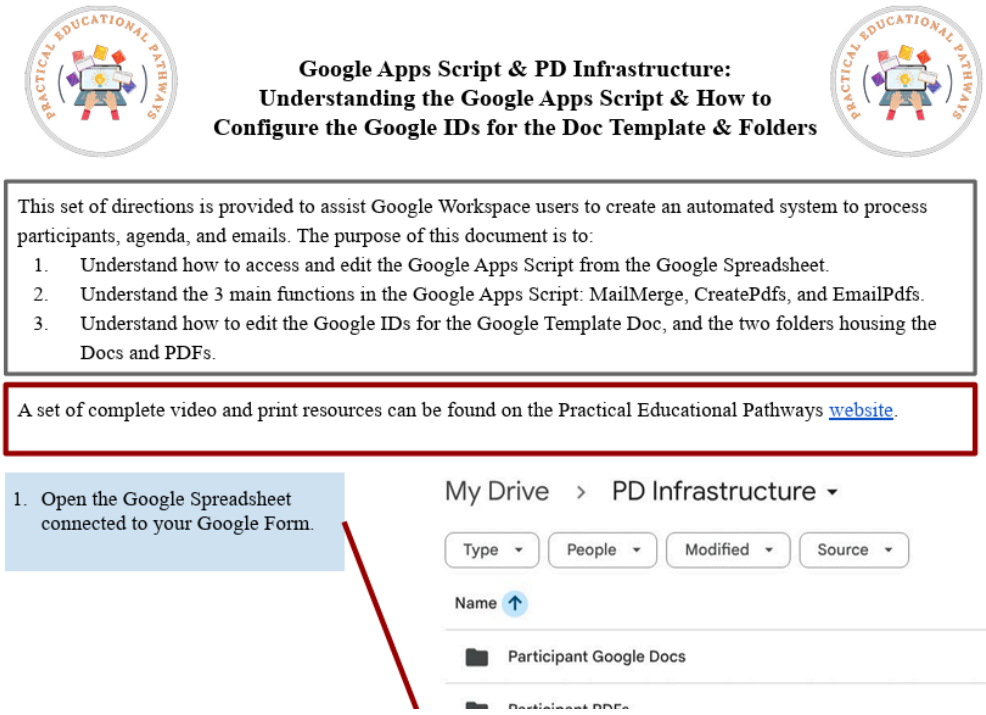
MindMap of Session 2

The MindMap below illustrates the major concepts of session 2.



Print Directions Review, Edit & Save the Google Apps Script

Click on the illustration below to access the print directions.



Google Apps Script & PD Infrastructure: Understanding the Google Apps Script & How to Configure the Google IDs for the Doc Template & Folders

This set of directions is provided to assist Google Workspace users to create an automated system to process participants, agenda, and emails. The purpose of this document is to:

1. Understand how to access and edit the Google Apps Script from the Google Spreadsheet.
2. Understand the 3 main functions in the Google Apps Script: MailMerge, CreatePdfs, and EmailPdfs.
3. Understand how to edit the Google IDs for the Google Template Doc, and the two folders housing the Docs and PDFs.

A set of complete video and print resources can be found on the Practical Educational Pathways website.

1. Open the Google Spreadsheet connected to your Google Form.

Video Illustrating How to Copy & Paste a Google Apps Script

This 1:48 minute video explains how to copy and paste the Google Apps Script.



Copy the Google Apps Script PD Infrastructure

Video Explaining the MailMerge function in the Google Apps Script

This 3:30 minute video explains how to change the Google IDs in the Google Apps Script.



Change the Google IDs for the PD Infrastructure

Video Explaining the MailMerge function in the Google Apps Script

This 5:20 minute video explains the MailMerge function in the Google Apps Script.



The Mail Merge Function for the PD Infrastructure

Video Explaining the CreatePDFs function in the Google Apps Script

This 5:11 minute video explains the CreatePDFs function in the Google Apps Script.



The PDF Creation Function for PD Infrastructure

Video Explaining the EmailPdfs function in the Google Apps Script

This 5:11 minute video explains the EmailPdfs function in the Google Apps Script.



Email Function for PD Infrastructure

PD Agenda Session 3

Let's review the PD Session 3 Agenda
90 Minute Session

Agenda - Session 3 (Agenda information is subject to updating)			
Timeline	**Topic**	**Resources**	**Notes**
5 minutes	Review of the Agenda & The Purpose for Today's PD Session.		Share and discuss the Agenda for today's training plan.
5 minutes	Who's in the Room	Google Meet Breakout Rooms	Break off into breakout rooms and discuss the following: *Tell us about yourself and your district. *What's your experience and comfort level with today's topic?
2 minutes	Review our Resources	PD Infrastructure Too… Google PD Infrastructure Professional Learning Series Website	Review the Support Documents from the Practical Educational Pathways Website.
5 minutes	Overview of Session 3	Review Notebook LM Mind Map Putting All the Components Together Testing End-to-End Workflow Using Google's AI Tool, Gemini, to Modify/Enhance the Script	Session 3: Putting all the pieces together, testing, and enhancing the output to fit each district's needs.
10 minutes	Let's Review Each of the Main Functions: 1. MailMerge Function 2. CreatePDFs Function 3. EmailPdfs Function	The MailMerge function YouTube Video The CreatePDFs function YouTube Video The EmailPdfs function YouTube Video Give Permissions to the Script YouTube Video	Review each of the main functions in the Google Apps Script. Use the Execution Log and review the correlation to the logger output and the script. Set the Permissions to the Google Apps Script.

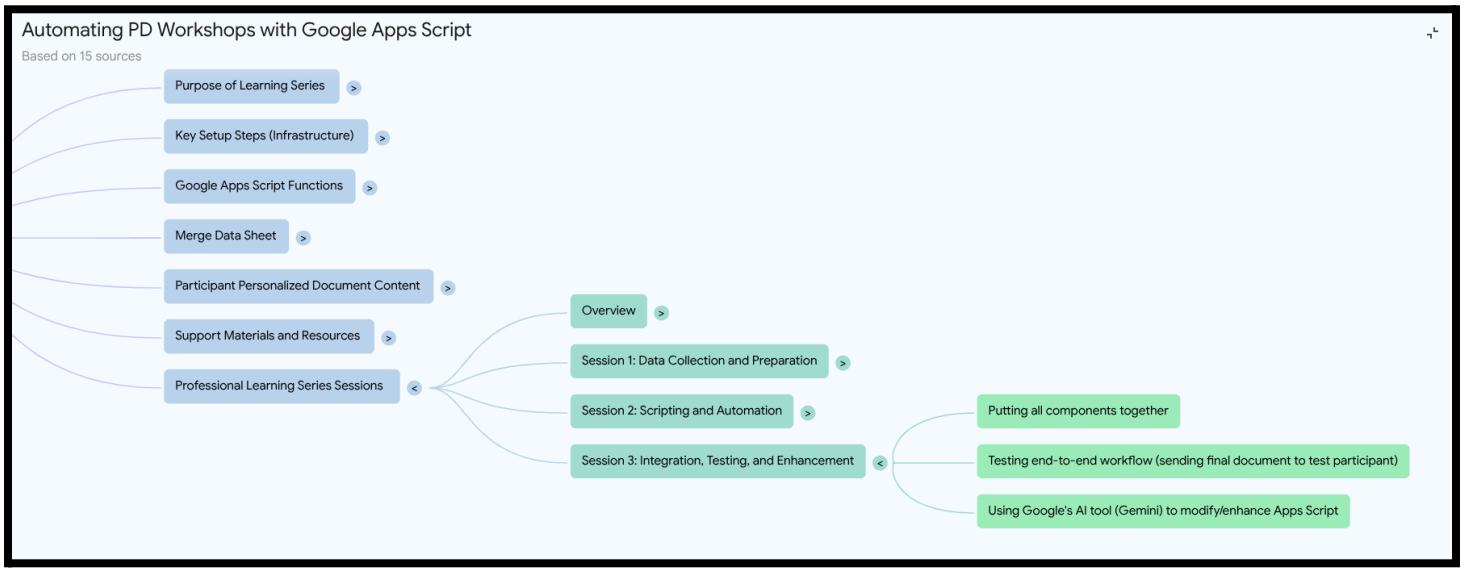
10 minutes	Put All the Pieces Together	Putting It All Together YouTube Video	Use JimMontiTest account to run through the entire process: 1. Fill-out the form. 2. Review the spreadsheet. 3. Run the MailMerge function and review the Google Doc Created. 4. Run the CreatePDFs function and review the PDF. 5. Run the EmailPdfs function and review the email.
20 minutes	Now You Do It - Put All the Pieces Together		Break off into breakout rooms to complete the task. The breakout rooms will allow folks to support each other. Have participants share the output of their experience.
10 minutes	Use Gemini to Review a Google Apps Script	Gemini Transcript Ex… Using Gemini AI with Google Apps Script YouTube Video	Walk participants through the process I use to interact with Gemini during the Google Apps Script development process.
15 minutes	Now You Do It - Jump into Gemini and Enhance, Edit, Revise Your Google Apps Script		Break off into breakout rooms to complete the task. The breakout rooms will allow folks to support each other. Have participants share the output of their experience.
5 minutes	Let's Wrap Up and Review		What Type of PD Series Would You Like to See Next?
3 minutes	Session Feedback Form	https://forms.gle/LhmtFXGVcnN5yqkb6	Please fill-out the survey to help us ensure that we're meeting the needs of our participants.

Session 3: Integration, Testing, and Enhancement

Let's Review how all of the pieces fit together, and how we can use Gemini to enhance the Script.

MindMap of Session 3

The MindMap below illustrates the major concepts of session 3.



Print Directions on Using Gemini to Assist in Using Gemini with Google Apps Scripts

Click on the illustration below to access the print directions.



Google Apps Script & PD Infrastructure:
Using AI - Google's Gemini and Google's Notebook LM to Assist with JavaScript

This set of directions is provided to assist Google Workspace users to understand, edit, and enhance Google Apps Script connected to Google Workspace. The purpose of this document is to:

1. Illustrate how to use Google's Gemini tool to create, understand, edit, and enhance Google Apps Script.
2. Illustrate how to use Google's Notebook LM tool to research a solution that incorporates Google Apps Script. This research will help districts to get feedback on the implementation of an automated solution.

A set of complete video and print resources can be found on the Practical Educational Pathways website.

1. Open the Google Apps menu, and select Gemini. Use Gemini to create, understand, edit, and/or enhance a Google Apps Script.
2. Enter your prompt for Gemini in the field.
3. Review the response from Gemini. Continue asking new prompts or questions to dig deeper into the Google Apps Script.

Video Illustrating How to Copy & Paste a Google Apps Script

This 1:48 minute video explains how to copy and paste the Google Apps Script.



Copy the Google Apps Script PD Infrastructure

Video Explaining the MailMerge function in the Google Apps Script

This 5:20 minute video explains the MailMerge function in the Google Apps Script.



The Mail Merge Function for the PD Infrastructure

Video Explaining the CreatePDFs function in the Google Apps Script

This 5:11 minute video explains the CreatePDFs function in the Google Apps Script.



The PDF Creation Function for PD Infrastructure

Video Explaining the EmailPdfs function in the Google Apps Script

This 5:11 minute video explains the EmailPdfs function in the Google Apps Script.



Email Function for PD Infrastructure

Video Explaining How to Use the App Script Editor in Google Drive

This 2:30 minute video explains the granting permissions process in the Google Apps Script.



Use Script Editor in Drive PD Infrastructure

Video Explaining the How to Give Permissions to Your Google Account in the Google Apps Script

This 2:06 minute video explains the granting permissions process in the Google Apps Script.



Set Permissions in Apps Script PD Infrastructure

Video Explaining the Entire Process from Start to Finish

This 2:28 minute video explains the entire process in putting it all together in the Google Apps Script.



Putting It Together Apps Script PD Infrastructure

Video Explaining How One Might Use Gemini to Assist in the Google Apps Script Process.

This 9:07 minute video explains how one might use Gemini to assist in writing, editing, and/or revising a Google Apps Script.



Using Gemini AI PD Infrastructure