

# Google

## Apps for Education

### **Instructional Systems Design**

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## Group Responsibilities

Group Member Name	Primary Role	Contributions
Rebecca Patterson	Project Manager	<ul style="list-style-type: none"> <li>Valuable contributor to all sections</li> <li>Main contributor to course content</li> <li>Will contribute to Appendix A/B, Table of Contents, and References as necessary.</li> <li>Broad Goals and Big Ideas</li> <li>Learning Objectives</li> </ul>
Cynthia Rubbelke	Team Member	<ul style="list-style-type: none"> <li>Valuable contributor to all sections</li> <li>Main contributor to course content</li> <li>Formative and Summative Evaluation</li> <li>Materials for Training Program or Learning System</li> <li>Will contribute to Appendix A/B, Table of Contents, and References as necessary.</li> </ul>
Margaret Llinas	Team Member	<ul style="list-style-type: none"> <li>Valuable contributor to all sections</li> <li>Main contributor to course content</li> <li>Will contribute to Appendix A/B, Table of Contents, and References as necessary.</li> <li>Learner Analysis</li> <li>Contextual Analysis</li> <li>Task Analysis (Google Drive/Docs)</li> </ul>
Hunter Channell	Team Member	<ul style="list-style-type: none"> <li>Valuable contributor to all sections</li> <li>Main contributor to course content</li> <li>Will contribute to Appendix A/B, Table of Contents, and References as necessary.</li> <li>Types of Learning Experiences and/or Instruction</li> <li>Materials for training program/learning systems</li> <li>Implementation plan along with training schedule and logistics</li> </ul>
Amy Frisz	Team Member	<ul style="list-style-type: none"> <li>Valuable contributor to all sections</li> <li>Main contributor to course content</li> <li>Will contribute to Appendix A/B, Table of Contents, and References as necessary.</li> <li>Types of Learning Experiences and/or Instruction</li> <li>Materials for Training Program or Learning System</li> <li>Implementation Plan for Your Product, including Schedule and Logistics</li> </ul>
Deana Pope	Team Member	<ul style="list-style-type: none"> <li>Valuable contributor to all sections</li> <li>Main contributor to course content</li> <li>Will contribute to Appendix A/B, Table of Contents, and References as necessary.</li> <li>Needs Assessment</li> </ul>

## Table of Contents

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<b>GROUP RESPONSIBILITIES .....</b>	<b>2</b>
<b>I. DESIRED RESULTS.....</b>	<b>4</b>
A. BROAD GOALS AND BIG IDEAS .....	4
B. LEARNING OBJECTIVES .....	5
C. NEEDS ASSESSMENT .....	7
D. TASK ANALYSIS .....	13
<b>II. EVIDENCE OF ACCEPTABLE RESULTS.....</b>	
A. FORMATIVE EVALUATION	
B. SUMMATIVE EVALUATION	
<b>III. LEARNING EXPERIENCES AND/OR INSTRUCTION</b>	
A. LEARNER ANALYSIS	
B. CONTEXTUAL ANALYSIS	
C. TYPES OF LEARNING EXPERIENCES AND/OR INSTRUCTION	
D. MATERIALS FOR TRAINING PROGRAM	
E. IMPLEMENTATION PLAN	

### REFERENCES

### APPENDICES

#### APPENDIX A. NEEDS ASSESSMENT INSTRUMENTS AND EVALUATION MATERIALS.....

##### A.1 *Needs Assessment Survey*

###### A.1.1 *Pre-training Faculty Questionnaire.*

###### A.1.2. *Questions for Interviews and Focus Groups:*

##### A.2 *Procedural Analysis Detailed*

##### A.3 *Formative Evaluation Materials*

##### A.4 *Summative Evaluation Materials*

#### APPENDIX B. MATERIALS, SCHEDULES, OUTLINES, ETC.

##### B.1 *Table of Learning Experiences and Instructional Strategies*

## I. DESIRED RESULTS

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### I-A. BROAD GOALS AND BIG IDEAS

As technology changes, many schools are moving towards a paperless 1-to-1 classroom in which students have access to a computer for all of their assignments and textbooks. This creates the potential for educational collaboration and meaningful use of technology for a greater number of students. The biggest road block for many teachers is the knowledge necessary to create and effectively use technology in the classroom. Many districts have begun implementing Google Apps for Education, but unfortunately there has not always been enough professional development in these districts to help support educators that are not familiar with this technology.

Our goal for this project is to create a two day in-service to help support teachers that have never used or are not fully using Google Apps for Education. We will focus on the main applications that are offered in Google Drive: Documents, Spreadsheets, Presentations, and Drawing.

- **Goal 1:** Teachers will be able to access Google Drive.
- **Goal 2:** Teachers will be able to access, create and share Google Documents.
- **Goal 3:** Teachers will be able to access, create and share Google Spreadsheets.
- **Goal 4:** Teachers will be able to access, create and share Google Presentations.
- **Goal 5:** Teachers will be able to access, create and share Google Drawings.

## **I-B. LEARNING OBJECTIVES**

**Goal 1:** Teachers will be able to access Google Drive.

- 1.1 Upon completion of the instructional sessions on Google Apps for Education, the participant will be able to access Google Drive.
- 1.2 Upon completion of the instructional sessions on Google Apps for Education, the participant will be able to upload files and folders to Google Drive.
- 1.3 Upon completion of the instructional sessions on Google Apps for Education, the participant will be able to download files and folders from Google Drive.
- 1.4 Upon completion of the instructional sessions on Google Apps for Education, the participant will be able to create shared folders for the purpose of team collaboration.

**Goal 2:** Teachers will be able to access, create and share Google Documents.

- 2.1 Upon completion of the instructional sessions on Google Apps for Education, the participant will be able to create a new Google Document.
- 2.2 Upon completion of the instructional sessions on Google Apps for Education, the participant will be able to share and edit Google Documents for the purpose of collaboration.
- 2.3 Upon completion of the instructional sessions on Google Apps for Education, the participant will conduct research with Research Tool while working on the document.

**Goal 3:** Teachers will be able to access, create and share Google Spreadsheets.

- 3.1 Upon completion of the instructional sessions on Google Apps for Education, the participant will be able to create a new Google Spreadsheet.
- 3.2 Upon completion of the instructional sessions on Google Apps for Education, the participant will be able to share and edit a new Google Spreadsheet for the purpose of collaboration.
- 3.3 Upon completion of the instructional sessions on Google Apps for Education, the participant will be able to insert and manipulate data in a Google Spreadsheet.

**3.4** Upon completion of the instructional sessions on Google Apps for Education, the participant will be able to manipulate data using the functions and formulas in Google Spreadsheet.

**3.5** Upon completion of the instructional sessions on Google Apps for Education, the participant will be able to construct a simple graph using data that has been collected in a Google Spreadsheet.

**Goal 4:** Teachers will be able to access, create and share Google Presentations.

**4.1** Upon completion of the instructional sessions on Google Apps for Education, the participant will be able to create a new Google Presentation.

**4.2** Upon completion of the instructional sessions on Google Apps for Education, the participant will be able to customize the theme of Google Presentation.

**4.3** Upon completion of the instructional sessions on Google Apps for Education, the participant will be able to share and edit a new Google Presentation for the purpose of collaboration.

**4.4** Upon completion of the instructional sessions on Google Apps for Education, the participant will be able to create a new slide within a Google Presentation.

**4.5** Upon completion of the instructional sessions on Google Apps for Education, the participant will be able to insert an image in Google Presentation.

**4.6** Upon completion of the instructional sessions on Google Apps for Education, the participant will be able to insert a video in Google Presentation.

**Goal 5:** Teachers will be able to access, create and share Google Drawings.

**5.1** Upon completion of the instructional sessions on Google Apps for Education, the participant will be able to create a new Google Drawing.

**5.2** Upon completion of the instructional sessions on Google Apps for Education, the participant will be able to share and edit a new Google Drawing for the purpose of collaboration.

5.3 Upon completion of the instructional sessions on Google Apps for Education, the participant will be able to conduct research with Research Tool in Google Drawing.

5.4 Upon completion of the instructional sessions on Google Apps for Education, the participant will be able to insert Drawings into Google Document, Spreadsheet, and Presentation.

### I-C. NEEDS ASSESSMENT

In order to determine the needs of the faculty to plan an effective in-service, we have decided to use various instruments stated in the table below to gather data from a variety of sources:

Types of Information	What do we need to know?	Why do we need to know this?	Information Sources	Types of Procedures (Instruments)
<b>Optimals</b>	How the K-12 District intends to use and incorporate Google Apps for Education?  What technical skills does the faculty need during training to effectively utilize Google: Document, Spreadsheet, Presentation and Drawing?	To establish what information and material needs to be incorporated and covered in the training.  To understand and establish how to the system is intended to assist educators and students.	Administrators  Google Apps for Education Certified Trainers	Interview
Types of Information	What do we need to know?	Why do we need to know this?	Information Sources	Types of Procedures (Instruments)
<b>Actuals</b>	What exposure has the faculty had with Google Apps for Education?  What prior knowledge/skill does the faculty have with the creation, development, and use of Google: Document, Spreadsheet, Presentation, and Drawing?	To understand and determine the faculty's current level of knowledge and skill so that the level of training is appropriate.  To determine if the faculty will need to be offered different tiers of training	Faculty	Questionnaire

	<p>Has the faculty received any previous training on or attended workshops on Google: Document, Spreadsheet, Presentation, and Drawing?</p> <p>In regards to prior experiences, what or how did the faculty use Google: Document, Spreadsheet, Presentation and Drawing?</p> <p>What are the desired skills, information, and/or resources to be gained from this training?</p> <p>What software is the faculty currently using to collaborate with co-workers and students?</p> <p>What similar software is the faculty familiar with (i.e.-Microsoft Office Suite)?</p> <p>What training/workshops has the faculty been provided on similar software (i.e.-Microsoft Office Suite)?</p> <p>Is the faculty familiar with other K-12 Districts utilizing Google Apps for Education?</p>	<p>(basic, intermediate, advanced) so that each faculty member feels that the training was beneficial.</p> <p>To help understand current practices along with any known pros and cons.</p>		
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<b>Types of Information</b>	<b>What do we need to know?</b>	<b>Why do we need to know this?</b>	<b>Information Sources</b>	<b>Types of Procedures (Instruments)</b>
<b>Determining Causes</b>	<p>Why is training on Google Apps for Education necessary?</p> <p>Does the faculty have access to the necessary equipment/setup to work with Google Apps for Education?</p> <p>Does the faculty have adequate support available to effectively utilize Google Apps for Education?</p>	<p>To determine what specific areas instructors are currently struggling with or have no knowledge of while using Google: Document, Spreadsheet, Presentation, and Drawing?</p> <p>To determine any equipment/network issues</p> <p>To determine if the faculty is provided adequate resources and support.</p>	<p>Administrators</p> <p>Technology Staff</p>	<p>Interview</p>
<b>Types of Information</b>	<b>What do we need to know?</b>	<b>Why do we need to know this?</b>	<b>Information Sources</b>	<b>Types of Procedures (Instruments)</b>
<b>Feelings</b>	<p>Do faculty members see value in this application?</p> <p>Are the faculty members motivated to use this application?</p> <p>Do the faculty members feel confident using similar software/applications?</p> <p>Do the faculty members feel confident using Google Apps for Education?</p> <p>Do the faculty members feel confident incorporating collaboration activities</p>	<p>Determining the faculty member's approach to, and outlook on Google Apps for Education, will help identify the level of motivation and enthusiasm to use the software.</p>	<p>Faculty</p> <p>Administrators</p>	<p>Questionnaire</p> <p>Focus Group</p> <p>Interview</p>

	with co-workers and students?			
<b>Types of Information</b>	<b>What do we need to know?</b>	<b>Why do we need to know this?</b>	<b>Information Sources</b>	<b>Types of Procedures (Instruments)</b>
<b>Possible Solutions</b>	<p>What are the best sources of information for teaching an effective Google Apps for Education workshop?</p> <p>What is the best approach to teach the faculty how to integrate the use of Google Apps for Education into their instruction?</p> <p>What is the best approach to motivate the faculty to learn and use Google Apps for Education?</p>	<p>To ensure the materials are up-to-date, relevant and meet the objectives of the workshop.</p> <p>To ensure the components of the workshop are feasible and the learners' experience is optimally effective.</p>	<p>Certified Trainers for Google Apps for Education</p> <p>Technology Staff</p>	Interview

To plan effective instructional sessions for the faculty, we first have to determine what information, skills and resources are needed to implement the use of Google Apps for Education and where the faculty stands currently with each of those items.

Administrators, certified trainers for Google Apps for Education, and the technology staff will be interviewed to determine what information, skills, and resources are necessary for the faculty to have after attending the in-service. They will also be used to determine possible areas of weakness that are currently hindering the faculty such as equipment and network issues. During the interview this group will also be used to determine the best possible solution for meeting the faculty's needs for effectively utilizing Google Apps for Education. Administration will also be asked additional questions during the interview in regards to the faculty's feeling towards implementing this initiative.

To gauge the current skill level and feelings of the faculty in regards to this initiative, the faculty will be surveyed with a questionnaire that has been created in Google Forms. By analyzing the data generated by the questionnaire we will be able to determine the faculty's current level of knowledge and skill so that training may be offered in different tiers if necessary so that each faculty members feels that the training was beneficial. A focus group will also be utilized to clarify any issues that were found by the questionnaire results and to provide additional information as needed.

Please refer to [Appendix A.1](#) for a list of interview questions and a copy of the pre-training faculty questionnaire.

#### **I-D. TASK ANALYSIS**

##### **Prerequisite Analysis:**

A pre-training survey will be administered to participants to determine the level of experience that they have regarding Google Drive and Google Apps for Education. Workshop participants will be divided into different learning groups based on their expressed level of experience and confidence in using these applications.

##### **Topic Analysis**

Goal 1: Teachers will be able to access Google Drive.

1. Introduction to Google Drive
  - a. Access Google Drive
  - b. Upload Files and Folders
    - i. Create New Folder in Google Drive
    - ii. Upload Files to Folder on Google Drive
    - iii. Upload Folder to Google Drive
  - c. Download Files and Folders
    - i. Download Folder from Google Drive
    - ii. Download File from Google Drive
  - d. Create Shared Folders
    - i. Share Folder with Collaborators

Goal 2: Teachers will be able to access, create and share Google Documents.

2. Working with Google Documents
  - a. Create New Document
  - b. Edit and Share Document
    - i. Enter and Format Text
    - ii. Share Document with Collaborators
  - c. Utilize Research Tool

**Procedural Analysis:**

Using the Learning Goals and Objectives described in Section 2, Learning Goals 1 and 2 have been detailed in a step-by-step procedural analysis. The analysis focused on determining the steps needed to achieve the observable and measurable goals for each application. These analyses are included in the [Appendix A.2](#).

## II. EVIDENCE OF ACCEPTABLE RESULTS

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### II.A FORMATIVE EVALUATION

The formative evaluation process will include three approaches. The initial approach will take place during the development process. This will ensure that the learning experiences and materials meet the objectives, are designed with sound instructional methods, and include appropriate content. Separate interviews will take place with both an experienced instructional designer and a certified trainer for Google Apps for Education. At the end of the instructional sessions the participants will be surveyed to determine whether or not the course met the specified goals and objectives.

**Key Questions**

1. Is the Google Apps instructional content accurate?
2. Does the instructional sessions' content include sufficient information for educators to be able to use Google Apps comfortably?
3. Are the instructional sessions logically structured and organized?
4. Is the time allotted for instructional content appropriate?

5. Are the learning experiences and content appropriate for the identified goals and objectives?
6. Is the content and level of learning appropriate for the intended audience?
7. What improvements in content are necessary?
8. What improvements in instructional design are necessary?
9. Is the class size and learning environment conducive to learning Google Apps for Educators?
10. Do the teachers feel comfortable with the ability to utilize Google Apps for Educators with students and colleagues?

See Formative Evaluation instruments in [Appendix A.3](#)

#### **Approaches to gain information**

##### **Approach 1: Interview with an Instructional Design Expert**

As novice instructional designers it will be beneficial to have the knowledge and recommendations of an experienced instructional designer in order to develop well-designed instructional sessions. This expert will be provided with the instructional sessions' objectives, instructional sessions' content, learning materials and implementation plan prior to launching the sessions. After the instructional designer has reviewed the materials, an interview will be conducted with the expert and two members of the design team. The interview will focus on the instructional sessions' design, training methods and learning materials. Structured and open-ended questions will be included in order to gather the most information.

##### **Approach 2: Interview with a Certified Trainer for Google Apps for Education**

In order to determine if essential content is included and appropriately structured an interview will take place with a certified Google Apps for Education trainer. The trainer will be given the instructional sessions' objectives; instructional sessions' content, learning materials and implementation plan prior to launching the sessions. After the trainer has reviewed the materials an interview will be conducted with the trainer and two members of the design team. The interview

will focus on instructional sessions' content, training materials, and implementation plan. Structured and open-ended questions will be included in order to gather the most information.

### **Approach 3: Survey of Course Participants**

Course participants will be asked to complete a Google survey at the end of the last session. Questions will focus on whether or not participants felt that the instructional sessions met the identified goals and objectives. Having the participants complete the survey at the end of the sessions will provide timely information and provide the designers with a better response rate. Data will be evaluated to make improvements to the instructional sessions as necessary for future implementation.

## **II.B Summative Evaluation (including assessment of learning)**

The summative evaluation process will include two approaches to determine the effectiveness and impact of the instructional sessions. The first approach will be a Google survey sent to course participants two months after the sessions are completed. The second approach will be a focus group of participants six months after completion of the instructional sessions. The evaluation will determine whether or not the goals and objectives of the instructional sessions were met and the impact of the sessions upon the participants. The data acquired from the evaluation will be utilized to improve subsequent offerings of the instructional sessions for teachers.

### **Key Questions**

1. Are teachers able to access Google Drive to effectively meet their needs?
2. Are teachers able to access, create and share Google Documents to effectively meet their needs?
3. Are teachers able to access, create and share Google Spreadsheets to effectively meet their needs?
4. Are teachers able to access, create and share Google Presentations to effectively meet their needs?

5. Are teachers able to access, create and share Google Drawings to effectively meet their needs?
6. Do teachers feel comfortable with their ability to access and utilize the features of Google Apps?
7. How are teachers using Google Apps for collaboration with students?
8. How are teachers using Google Apps for collaboration with colleagues?
9. Are teachers using other features of Google Apps that were not covered in the instructional sessions?
10. Are there any other features of Google Apps that should be presented in the instructional sessions?
11. What issues are teachers encountering in utilizing Google Apps for collaboration?

**Approaches to gain information:**

**Approach 1: Google Survey of Course Participants**

A Google survey will be sent to session participants approximately 2 months after completing the instructional sessions. This will allow them enough time to begin using Google Apps for Education and become familiar with the features. The survey will ask a variety of questions related to the teacher's comfort level with using Google Apps and if they are able to use it to effectively to meet their needs. Questions will also address which apps and features are being used, including any that were not taught in the instructional sessions. Open ended questions will be included to allow for qualitative data.

**Approach 2: Focus Groups with Course Participants**

Focus groups of 6-10 course participants will be the final summative evaluation method. The questions posed to the group will be similar to those in the questionnaire, as well as questions which address the impact of the instructional sessions. The focus group sessions will be videotaped for later analysis.

### III. LEARNING EXPERIENCES AND/OR INSTRUCTION

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#### III-A. Learner Analysis

Our Google Apps for Education in-service will focus on K-12 faculty in a district. In analyzing these learners, we are determining the information that will guide the design and implementation of the instructional sessions to best meet their needs in a stimulating, engaging and efficient manner. Learner factors were considered within orienting, instructional and transfer contexts. The data for the Learner Analysis will be gathered in the form of a pre-training questionnaire, and consultation/interviews with instructional technology department, professional development team, and school administration.

Learner Factors	Data Collection
<p><b>Orienting Context</b></p> <ol style="list-style-type: none"><li>1. What are the goals/needs of the K-12 faculty?</li><li>2. How will the faculty benefit from the instruction?</li><li>3. What are the demographic characteristics of the faculty? (age, years of experience, educational background, subject(s) taught, grade level(s) taught, learning preferences, etc.)</li><li>4. What previous education/training have learners received in dealing with Google Apps for Education?</li><li>5. What input would learners have on content and instructional goals?</li><li>6. What goals does the faculty member have in attending the instructional sessions?</li><li>7. What motivations does faculty have for attending the instructional sessions?</li><li>8. Will attendance at instructional sessions be required?</li></ol>	<p>Items 1-6: Pre-training questionnaire</p> <p>Items 7-8: Interview with school administration.</p>
<p><b>Instructional Context</b></p> <ol style="list-style-type: none"><li>1. Does faculty perceive a need for this training?</li></ol>	<p>Item 1: Pre-training</p>



<ol style="list-style-type: none"> <li>2. What is the schedule for follow-up and additional support for faculty post-instruction?</li> <li>3. What method of evaluation of successful transfer of knowledge would best encourage faculty participation?</li> <li>4. Are there mnemonics, visual cues, or other sensory modalities that could enhance memory consolidation?</li> </ol>	<p>questionnaire</p> <p>Items 2-4: Interview with instructional technology and professional development team.</p>
<p><b>Transfer Context</b></p> <ol style="list-style-type: none"> <li>1. Does faculty believe that the instructional sessions will improve their teaching?</li> <li>2. Will faculty have opportunities to practice the skills demonstrated in the instructional sessions?</li> <li>3. Are there other incentives that could also be used to increase faculty participation in instructional sessions (comp time, etc.)?</li> </ol>	<p>Items 1-2: Pre-training questionnaire</p> <p>Item 3: Interview with school administration</p>

### III-B. Contextual Analysis

Contextual analysis was developed for the faculty who will be attending the Google Apps for Education instructional sessions and divided among the orienting, instructional and transfer contexts. In addition to the Learner Analysis pre-instructional sessions survey/questionnaire form, further data collection will occur through the following sources:

Data Collection #1: Pre-Training Questionnaire in Google Forms

Data Collection #2: Post-Instructional Feedback Survey for Faculty and School Administration

Data Collection #3: Interview with Instructional Technology and Professional Development Teams

Data Collection #4: Interview with School Administration

<b>Orienting Context</b>	<b>Data Collection for</b>
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	Information
<p><b>Immediate Environment Factors</b></p> <ol style="list-style-type: none"> <li>1. What types of technology support networks are available to the faculty?</li> <li>2. How much access does faculty have to technology in the classroom?</li> <li>3. Are faculty currently using collaborative technology tools in the classroom (blogs, wikis, etc.)?</li> <li>4. Where does faculty currently go for help with their technology concerns?</li> </ol>	<p>Items 1-4: Pre-training questionnaire</p> <p>Items 1-4: Interview with instructional technology and professional development teams</p>
<p><b>Organizational Factors</b></p> <ol style="list-style-type: none"> <li>1. What is the budget for the instructional sessions?</li> <li>2. To what extent will facility and professional development resources be allocated for the training?</li> <li>3. How much have faculty previously been encouraged to learn about Google Apps for Education?</li> <li>4. What incentive for faculty will be provided for participation?</li> </ol>	<p>Items 1-2. Interview with instructional technology department</p> <p>Items 3-4. Pre-training questionnaire</p>

Instructional Context	Data Collection for Information
<p><b>Immediate Environment Factors</b></p> <ol style="list-style-type: none"> <li>1. Is there an appropriate facility to conduct the instructional sessions?</li> <li>2. Will faculty have access to a recording of the session for review?</li> <li>3. Will faculty be provided with materials for guided note-taking?</li> <li>4. Will instructors be available immediately after instructional sessions to answer faculty questions?</li> </ol>	<p>Items 1-2: Interview instructional technology department to discuss options for presentation and archiving of presentations.</p>

	Items 3-4. Interview with school administration to determine materials and scheduling plan for instructional sessions.
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Transfer Context	Data Collection for Information
<p><b>Immediate Environment Factors</b></p> <ol style="list-style-type: none"> <li>1. Are there opportunities for long term follow up with faculty that can build on skills gained from the instructional sessions?</li> <li>2. Are professional learning networks available to help faculty reinforce skills learned?</li> <li>3. Is there support from departmental and school administration for implementation of new skills acquired?</li> <li>4. Are situational cues that will remind faculty of key points available (posters, instructional session handouts, follow-up newsletters, etc.)?</li> </ol>	Items 1-4. Post-instructional feedback survey for faculty and school administration to rate the effectiveness of and satisfaction with educational experience
<p><b>Organizational Factors</b></p> <ol style="list-style-type: none"> <li>1. Is there the availability of further training for faculty after the instructional sessions?</li> <li>2. Is the administration committed to supporting ongoing learning among faculty on this topic?</li> </ol>	Items 1-2: Interview school administration to determine future needs and long-term learning.

The following assumptions have been made in the learner and contextual analysis of the planned instructional sessions: Learners are expected to be classroom teachers with a variety of years of experience and representing the range of K-12 grade levels and subject areas. While familiarity with specific

programs that are similar to Google Apps for Education (word processing, spreadsheet, presentation and graphic design) will be gauged as part of the pre-training questionnaire, basic familiarity with computer skills such as turning on the computer, accessing files from the desktop, and operating a keyboard and mouse will be assumed. It is also assumed that each participant will have been issued or will have created a Google account.

Assumptions regarding the facility where the instructional sessions will take place include a computer lab with instructor presentation capabilities using a SmartBoard or other computer-based projection option, one-to-one devices available for session participants, and access to the Internet for both instructor and participants.

### **III-C. Types of Learning Experiences and/or Instructions**

The learning experiences in this training are comprised of direct instruction using a group presentation approach. The format is comprised of lecture, visual simulations and applications using Google Apps for Education, as well as student experiences through their respective workstation. Training for this course is intended to take place over two consecutive days in four-hour sessions for a total of eight hours of synchronous training. Instructional sessions will occur at the respective school's computer lab. Students will have the opportunity to practice the various tasks with instructor feedback and guidance.

See [Appendix B.1](#) for the Table of Learning Experiences and Instructional Strategies.

### **III-D. Materials for Training Program**

**STILL NEED AN INTRO SMALL PARAGRAPH HERE.**

See [Appendix B.2](#) for \_\_\_\_\_

### III-E. Implementation Plan

#### Implementation Plan

Google Apps for Education will consist of eight hours of in-service training conducted over a period of two days. The design of this course is for users new to the various applications (Document, Spreadsheet, Presentation and Drawing) available in Google Apps for Education from Google Drive. The in-service training will occur during identified Professional Development days (typically the second week of August) prior to school start in the fall of the 2014-2015 School Year. This will allow teachers to take maximum advantage during the year of the tools offered in Google Apps for Education. To identify teacher demographics, technology familiarity, and goals for the training, attendees will complete a pre-instructional survey. Along with the attendee survey, administrators will be interviewed with IT personnel to determine training goals.

The training team will work with the district IT personnel to identify and reserve a computer lab with Internet connectivity to train a maximum of thirty teachers in one session. Due to the nature of the training, computer workstations/laptops and Internet connectivity are essential. In addition, the lab will need to have a projection system with computer and Internet access for the instructor. The onsite trainer is responsible for ensuring the computers and projector are operational prior to the start of training. Since the training will occur prior to the start of school, network bandwidth should not be an issue. However, IT personnel should be readily accessible to address any issues that may arise.

#### Logistic Requirements

- Computer lab with workstations/laptops to accommodate thirty (30) students
- Ensure AC is working and on prior to class start
- Building is unlocked and open for instructor at least one hour prior to class start

- High-speed Internet connectivity
- Instructor station with Internet connectivity and projector
- Online district accounts to provide access for each attendee
- **Hardcopy handouts** of presentation materials for each attendee
- E-copies of handouts available (these can be stored on the instructor's Google Drive and shared with the teachers in attendance)

Comment [C1]: Can this be removed?

See [Appendix B.3](#) for the Implementation Schedule.

## REFERENCES

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Drive - Education Training Center. (n.d.). *Drive - Education Training Center*. Retrieved November 17, 2013, from <http://edutraining.googleapps.com/drive>

## APPENDICES

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### APPENDIX A. NEEDS ASSESSMENT INSTRUMENTS AND EVALUATION MATERIALS

#### A.1 NEEDS ASSESSMENT INSTRUMENTS

##### A.1.1 PRE-TRAINING FACULTY QUESTIONNAIRE.

(Also can be found using this link: [Pre-Training Faculty Questionnaire](#))

1. How often do you incorporate collaborative activities in your classroom?
  - Never
  - Rarely
  - Occasionally
  - Frequently

2. If so, what product do you currently use?

3. How often do you work collaboratively with co-workers?

- Never
- Rarely
- Occasionally
- Frequently

4. If so, what product do you currently use?

5. How familiar are you with Google Apps for Education?

- Never Used/Seen
- Seen It Used
- Occasional User
- Regular User
- Power User (could teach others)

6. If you are a current Google Apps for Education user, how long have you been using it?

- Not a Current User
- 0-6 Months
- 6-12 Months
- For Over a Year

7. How do you rate Google Apps for Education as a tool for collaborative activities?

- Don't Know/Never Used
- Poor
- Fair
- Good
- Excellent

8. Have you received formal training on the Google Apps for Education application?

Yes

No

9. What tasks do you find particularly easy to perform with Google Apps for Education?

10. What tasks in Google Apps for Education do you find challenging?

11. Please list any major issues you have experienced while using the Google Apps for Education application.

12. Overall the faculty sees the value of this initiative and is committed to the implementation of Google Apps for Education.

Agree

Tend to Agree

Tend to Disagree

Disagree



13. Overall the faculty feels that they are being supported in the implementation of this initiative.

- Agree
- Tend to Agree
- Tend to Disagree
- Disagree

14. Overall the faculty feels that they are being provided the necessary equipment/network setup to use Google Apps for Education.

- Agree
- Tend to Agree
- Tend to Disagree
- Disagree

15. Overall the faculty feels that they are being provided the necessary training and resources to effectively implement this initiative.

- Agree
- Tend to Agree
- Tend to Disagree
- Disagree

16. What information, skills, or resources would you like to take away from training?

17. What is your experience with the creation and development of **documents**?

- No Experience
- Some Experience but Uncomfortable
- Comfortable
- Very Comfortable and Could Help Others

18. Briefly describe how you have used **documents** in the past.

19. Please list the specific software/application that you have used for **documents** in the past.

20. What is your experience with the creation and development of **spreadsheets**?

- No Experience
- Some Experience but Uncomfortable
- Comfortable
- Very Comfortable and Could Help Others

21. Briefly describe how you have used **spreadsheets** in the past.

22. Please list the specific software/application that you have used for **spreadsheets** in the past.

23. What is your experience with the creation and development of **presentations**?

- No Experience
- Some Experience but Uncomfortable
- Comfortable

- Very Comfortable and Could Help Others

24. Briefly describe how you have used **presentations** in the past.

25. Please list the specific software/application that you have used for **presentations** in the past.

26. What is your experience with the creation and development of **graphics**?

- No Experience
- Some Experience but Uncomfortable
- Comfortable
- Very Comfortable and Could Help Others

27. Briefly describe how you have used **graphics** in the past.

28. Please list the specific software/application that you have used to create **graphics** in the past.

#### **A.1.2 QUESTIONS FOR INTERVIEWS AND FOCUS GROUP:**

##### **Interview Questions for Administration and other Specialists:**

1. How does the District plan to use and incorporate Google Apps for Education?
2. What skills does the faculty need to effectively utilize Google Apps for Education?
3. What information or resources is currently available to the faculty?
4. What information or resources need to be provided to the faculty during training?
5. Does the faculty have access to the necessary equipment/network setup to effectively use Google Apps for Education? If not, what is missing?
6. Is the faculty being provided the necessary support to implement this type of technology? If not, what is missing?
7. What is the best approach to facilitate training for the faculty?

##### **Additional Interview Questions for Administration:**

1. What are the overall feelings for working collaboratively with students and co-workers?
2. How motivated to do you see the faculty in implementing the use of Google Apps for Education?
3. How do you feel the faculty is being supported in this initiative?
4. How do you feel the faculty is being provided the necessary information and resources to implement this technology?

##### **Focus Group Discussion for Faculty:**

1. Do you feel that the faculty sees the value of this initiative and is committed to the implementation of this technology?
2. Do you feel that the faculty is being supported in the implementation of this initiative?
3. How do you feel about working collaboratively with students and co-workers through the use of Google Apps for Education?
4. Do you feel that the District has provided the necessary equipment/network setup to use Google Apps for Education?

5. Overall do you feel that you are being provided the necessary training and resources to effectively implement this initiative?
6. What information, skills, or resources would you like to take away from training?

## A.2 PROCEDURAL ANALYSIS DETAILED OUTLINE

Goal 1 Objectives:

1.1 Upon completion of the instructional sessions on Google Apps for Education, the participant will be able to access Google Drive.

### PROCEDURAL ANALYSIS

1. Sign in to Google account
  - a. Enter "[www.drive.google.com](http://www.drive.google.com)" in in the address bar of the browser window
  - b. Enter Google Account username and password
    - i. Personal Google Account Google Drive page will open
    - ii. Links to "My Drive" and "Shared with me" will appear in the left column

1.2 Upon completion of the instructional sessions on Google Apps for Education, the participant will be able to upload files and folders to Google Drive.

### PROCEDURAL ANALYSIS

1. Create New Folder in Google Drive
  - a. Click on the "Create" icon above "My Drive"
    - i. New popup window will appear
  - b. Click on "Folder"
    - i. New popup will appear.
  - c. Rename folder by typing in the text box
  - d. Enter "Sample Workshop Folder 1" in the text box
  - e. Click "Create"
    - i. New folder "Sample Workshop Folder 1" will appear in My Drive list
2. Upload files to folder on Google drive
  - a. Open "Sample Workshop Folder 1" by clicking on it.
  - b. Click on "Upload" icon on the left hand side of the screen (icon with arrow and line below, next to "Create")
    - i. Dropdown menu will appear
  - c. Select "File" from dropdown menu
    - i. File window will open on your computer
    - ii. Select "Desktop"
    - iii. Select "Workshop Sample Folder 2"
      - 1) Double click on "Workshop Sample Folder 2"
      - 2) Select "Syllabus" document within folder

- 3) Click on “Open” button
  - iv. Uploading progress window will appear
  - v. “Upload complete” will appear when process is complete
  - vi. Close out of progress window by clicking on “X” in right hand corner
  - vii. “Syllabus” document will appear in My Drive list
- 3. Upload folder to Google Drive
  - a. Click on “Upload” icon on the left hand side of the screen (icon with arrow and line below)
    - i. Dropdown menu will appear
    - ii. Select “Folder” from dropdown menu
  - b. “Browse for Folder” pop-up window will open on computer
    - i. Under “Desktop,” select “Workshop Sample Folder 2” folder
      - 1) Click “OK”
    - ii. Uploading progress window will appear
    - iii. “Upload complete” will appear when process is complete
    - iv. Close out of progress window by clicking on “X” in right hand corner
    - v. “Workshop Sample Folder 2” will appear in My Drive list

1.3 Upon completion of the instructional sessions on Google Apps for Education, the participant will be able to download files and folders from Google Drive.

### **PROCEDURAL ANALYSIS**

- 1. Download Folder from Google Drive
  - a. Click on check box next to “Sample Workshop Folder 2” in My Drive list
    - i. Check mark will appear and folder will be highlighted
  - b. Select “More” from ribbon bar above My Drive list
    - i. Dropdown menu will appear
  - c. Select “Download” from the dropdown menu
    - i. New popup window will appear
      - 1) If “Selected items” is not shown in red, click on it.
      - 2) Select blue “MS Office” link
      - 3) Click on blue “Download” button
      - 4) New window will appear with download progress information
  - d. Click blue “Close” button
- 2. Download File from Google Drive
  - a. Click on “Sample Workshop Folder 2” in My Drive list
    - i. New window will appear with folder document list
  - b. Click on check box next to “Syllabus” in My Drive list
    - i. Check mark will appear and folder will be highlighted
  - c. Select “More” from ribbon bar above My Drive list
    - i. Dropdown menu will appear
  - d. Select “Download” from dropdown menu

- i. New popup window will appear
  - 1) Select blue “MS Office” link
  - 2) Click on blue “Download” button
  - 3) Download bar will appear at bottom of browser
  - 4) Folder will appear in downloads folder

1.4 Upon completion of the instructional sessions on Google Apps for Education, the participant will be able to create shared folders for the purpose of team collaboration.

### PROCEDURAL ANALYSIS

1. Share folder with collaborators
  - a. Click on checkbox next to “Sample Workshop Folder 1” in My Drive list
  - b. Select “Share” icon from ribbon bar (person icon with + sign)
    - i. Alternate method: right click on the item and select “share” from the pop-up
  - c. Popup window will appear with different options for sharing document
  - d. Change access to folder by clicking on the blue “Change” link next to the “Who Has Access” section
    - i. New popup window will appear with different options for folder access
      - 1) “Public on the web (Anyone on the Internet can find and access. No sign-in required.)”
      - 2) “Anyone with the link (Anyone who has the link can access the document. No sign-in required.)”
      - 3) “Private (Only people specifically granted permission can access. Sign-in required.)”
    - ii. Select “Private”
    - iii. Click on green “Save” button
    - iv. Popup window will close and return you to the “Sharing setting” pop-up
  - e. Add collaborators by inviting through email
    - i. Click on the “Invite people” box
    - ii. Enter the email of a colleague who is also attending the workshop
      - 1) Exchange emails with a nearby colleague
      - 2) Add colleague’s email to the “Invite people” box
    - iii. Click on the blue “can edit” link to set collaboration permission
      - 1) “Can edit”
      - 2) “Can comment”
      - 3) “Can view”
    - iv. Select “Can edit”
      - 1) This is the default sharing setting
    - v. Select check box “Notify people via email”
      - 1) This is the default notification setting

- vi. Click on blue “Add message” link
  - 1) Type “This is the item I’m sharing from our in-service.”
- vii. Click on checkbox “Send a copy to myself”
- viii. Click on green “Share and save” button
- ix. Email address will be added to “Who has access link”
- x. Click on blue “Done” button
- xi. A white circle will appear on the folder icon and “Shared” will appear next to the folder icon to indicate that the folder is shared.

Goal 2: Teachers will be able to access, create and share Google documents.

2.1 Upon completion of the instructional sessions on Google Apps for Education, the participant will be able to create a new Google document.

#### **PROCEDURAL ANALYSIS**

1. Sign in to Google account
  - a. Enter “[www.drive.google.com](http://www.drive.google.com)” in in the address bar of the browser window
  - b. Enter Google Account username and password
    - i. Personal Google Account Google Drive page will open
  - c. Links to “My Drive” and “Shared with me” will appear in the left column
2. Click “Create”
  - a. Drop down menu will appear
3. Select “Document” from drop down menu
  - a. Word processing document will appear in new window
  - b. Document will be labeled “Untitled document” in the upper left corner
4. Rename document
  - a. Click on “Untitled document” in the upper left corner
    - i. Popup box will appear
  - b. Change document name to “Workshop Document”
  - c. Click on blue “OK” box

2.2 Upon completion of the instructional sessions on Google Apps for Education, the participant will be able to share and edit Google Documents for the purpose of collaboration.

#### **PROCEDURAL ANALYSIS**

1. Enter and format text
  - a. Open document “Workshop Document”
  - b. On the word processing document, type the word “Title”
  - c. Highlight the word “Title” by clicking and dragging over the word”
    - i. The word will be highlighted in blue
  - d. Select Font from menu bar by clicking on the arrow next to the word Arial
    - i. Default style is Arial



- ii. Dropdown list will appear
    - iii. Select "Times New Roman" from dropdown list
  - e. Select Font Size from menu bar
    - i. Default size is 11 pt
    - ii. Dropdown list will appear
    - iii. Select "18" from dropdown list
    - iv. Font size will change to 18 pt
  - f. Select the Bold by clicking on the letter B in the menu button from the menu bar
  - g. Click at the end of the word "Title" to un-highlight.
  - h. Add two line spaces to the document by hitting the enter key
  - i. Type the words "Sample text."
  - j. Highlight the words "Sample text." by clicking and dragging over the words
    - i. The words will be highlighted in blue
  - k. Select "Font" from the menu bar
    - i. Default font style is Arial
    - ii. Dropdown list will appear
    - iii. Select "Times New Roman" from dropdown list
    - iv. Font style will change to Times New Roman
  - l. Select Font Size from menu bar
    - i. Default font size is 11 pt
    - ii. Dropdown list will appear
    - iii. Select "10" from dropdown list
    - iv. Font size will change to 10 pt
- 2. Share document with collaborators
  - a. Click on "File" in menu bar
  - b. Select "Share" from drop down menu
    - i. Popup window will appear with different options for sharing document
  - c. Change access to document by clicking on the blue "Change" link next to the "Who Has Access" section
    - i. New popup window will appear with different options for document access
      - 1) "Public on the web (Anyone on the Internet can find and access. No sign-in required.)"
      - 2) "Anyone with the link (Anyone who has the link can access the document. No sign-in required.)"
      - 3) "Private (Only people specifically granted permission can access. Sign-in required.)"
    - ii. Select "Private"
    - iii. Click on green "Save" button
    - iv. Popup window will close
  - d. Add collaborators by inviting through email
    - i. Click on the "Invite people" box

- ii. Enter the email of a colleague who is also attending the workshop”
  - 1) Exchange emails with a nearby colleague
  - 2) Add colleague’s email to the “Invite people” box
- iii. Click on the blue “can edit” link to set collaboration permissions
  - 1) “Can edit”
  - 2) “Can comment”
  - 3) “Can view”
- iv. Select “Can edit”
  - 1) This is the default sharing setting
- v. Select check box “Notify people via email”
  - 1) This is the default notification setting
- vi. Click on blue “add message” link
  - 1) Type “I’ve shared this document with you.”
  - 2) Click on checkbox “Send a copy to myself”
- vii. Click on green “Share and save” button
- viii. Email address will be added to “Who has access link”
- ix. Click on blue “Done” button

2.3 Upon completion of the instructional sessions on Google Apps for Education, the participant will conduct research with Research Tool while working on the document.

#### **PROCEDURAL ANALYSIS**

1. Open document “Workshop Document” from Google Drive
2. Click on “Tools” in menu bar
  - a. From the dropdown menu, select “Research”
    - i. New split window will appear on the right side of the document
  - b. Click on Search Box in the new window
    - i. Dropdown menu will appear
      - 1) Everything (Google Search)
      - 2) Images (Google Image Search)
      - 3) Scholar (Google Scholar Search)
      - 4) Quotes (Quote Search)
      - 5) Dictionary (Definition/Synonym Search)
      - 6) Personal (Google Drive Search)
      - 7) Tables (Data Table Search)
    - ii. Select “Images”
      - 1) Results will appear in split window based on the text in the document
        - a) Click on dropdown menu “Filter image results by usage rights”
          - i. Select “Free to use, share or modify, even commercially
        - b) Click on dropdown menu “Use this citation format”
          - i. Select “MLA”

- 2) Click on links in the split window to explore search results
  - a) Select an image from the results window
  - b) Right click on an image result
  - c) Click in document below "Title"
  - d) Select "Edit" in toolbar
  - e) Select "Paste" from dropdown
  - f) Image will appear in document

### **A.3 INSTRUMENTS FOR FORMATIVE EVALUATION**

#### **Interview Questions for Instructional Design Expert**

Thank you for taking the time to meet with us today. We are developing an instructional course for Google Apps for Education. As an experienced instructional designer we value your feedback regarding our course design. The purpose of the interview is to determine changes in the course that may be necessary prior to implementation so that we can design a superior course. This interview should take no more than 30 minutes.

Do you have any questions before we start?

1. After reviewing the content do you believe that the course provides the learners with a clear knowledge of the program objectives?
2. Are the objectives measurable and achievable within the timeframe allotted for the course?
3. Are all of the instructional methods and content appropriate for the objectives?
4. Is the pedagogical design of the course based on sound learning theory and principles?
5. Is the course logically structured and organized?
6. Is the pace of the course appropriate?
7. Is the difficulty level of the course instruction appropriate?

8. What recommendations do you have for an appropriate group size and environment conducive to learning the content?
9. What other comments or suggestions do you have for improving the instructional design of the course?

**Interview Questions for Certified Trainer for Google Apps for Education**

Thank you for taking the time to meet with us today. We are developing an instructional course for Google Apps for Education. As a Certified Trainer for Google Apps we value your feedback regarding our course content and implementation plan. The purpose of the interview is to determine changes in the course that may be necessary prior to implementation so that we can design a superior course. This interview should take no more than 30 minutes. Do you have any questions before we start?

1. Are the course objectives realistic?
2. Is the necessary content included to allow teachers to access Google Drive appropriately?
3. Is the necessary content included to allow teachers to access, create and share Google Documents, Spreadsheets, Presentations, and Drawings appropriately?
4. Are all of the course training materials accurate?
5. Is the allotted time frame appropriate for the content to be covered?
6. Are the learning activities appropriate for the content to be covered?
7. Should any other content be added to the course?

8. What other comments or suggestions do you have for improving the instructional content of the course?

### **Questionnaire for Course Participants**

(Also can be found using this link: [Course Participants Questionnaire](#))

Please help us improve this course by answering the questions below. Your responses will be recorded anonymously. Thank you.

1. Have you used Google Drive for collaboration prior to this course?
  - Yes
  - No
2. How familiar are you with Google Apps for Education?
  - Never Used/Seen
  - Seen It Used
  - Occasional User
  - Regular User
  - Power User (could teach others)
3. If you are a current Google Apps for Education user, how long have you been using it?
  - Not a Current User
  - 0-6 Months
  - 6-12 Months
  - For Over a Year
4. Have you received formal training on the Google Apps for Education prior to this course?
  - Yes
  - No
5. This Google Apps training course will be valuable for use in collaborating with students.
  - Agree
  - Tend to Agree
  - Undecided

Tend to Disagree

Disagree

6. This Google Apps training course will be valuable for use in collaborating with colleagues.

Agree

Tend to Agree

Undecided

Tend to Disagree

Disagree

7. The learning activities were aligned with the course objectives.

Agree

Tend to Agree

Undecided

Tend to Disagree

Disagree

8. The pace of the course was appropriate.

Agree

Tend to Agree

Undecided

Tend to Disagree

Disagree

9. The group size was conducive to learning.

Agree

Tend to Agree

Undecided

Tend to Disagree

Disagree

10. The instructors were knowledgeable of the content.

- Agree
- Tend to Agree
- Undecided
- Tend to Disagree
- Disagree

11. The course location was conducive to learning.

- Agree
- Tend to Agree
- Undecided
- Tend to Disagree
- Disagree

12. I feel comfortable with my ability to access Google Drive after taking this course.

- Agree
- Tend to Agree
- Undecided
- Tend to Disagree
- Disagree

13. I feel comfortable with my ability to access, create and share Google Documents after taking this course.

- Agree
- Tend to Agree
- Undecided
- Tend to Disagree
- Disagree

14. I feel comfortable with my ability to access, create and share Google Spreadsheets after taking this course.

- Agree
- Tend to Agree
- Undecided

Tend to Disagree

Disagree

15. I feel comfortable with my ability to access, create and share Google Presentations after taking this course.

Agree

Tend to Agree

Undecided

Tend to Disagree

Disagree

16. I feel comfortable with my ability to access, create and share Google Drawings after taking this course.

Agree

Tend to Agree

Undecided

Tend to Disagree

Disagree

17. Please identify which part of the course you felt was most helpful and explain why.

18. Please identify which part of the course you felt was least helpful and explain why.



19. Are there any other issues or comments about the course that would be helpful for us to know? Please explain.

#### **A.4 INSTRUMENTS FOR SUMMATIVE EVALUATION**

##### **Questionnaire for Course Participants**

(Also can be found using this link: [Summative Evaluation Questionnaire for Course Participants](#))

Since you have previously taken an instructional course on Google Apps for Education we are interested in knowing how that course has been helpful to you for collaboration with students and with your colleagues. We appreciate you taking the time to complete this survey. Your responses will be utilized to evaluate and improve the course for other teachers. All responses will be recorded anonymously.

1. Are you using Google Apps for collaboration with students?

- Yes
- No

2. Are you using Google Apps for collaboration with your colleagues?

- Yes
- No

3. If you answered No to question 1 or 2, please explain why

4. Are you able to access Google Drive to effectively meet your needs?

Yes

No

5. Are you able to access, create, and share Google Documents to effectively meet your needs?

Yes

No

6. Are you able to access, create, and share Google Spreadsheets to effectively meet your needs?

Yes

No

7. Are you able to access, create, and share Google Presentations to effectively meet your needs?

Yes

No

8. Are you able to access, create, and share Google Drawings to effectively meet your needs?

Yes

No

9. If you answered No to any of questions 4-7, please explain why.

10. What other features are you using in Google Drive besides those taught in the course? How are you using those features?

11. What other features are you using in Google Document besides those taught in the course? How are you using those features?

12. What other features are you using in Google Spreadsheet besides those taught in the course? How are you using those features?

13. What other features are you using in Google Drawing besides those taught in the course? How are you using those features?

14. Now that you have had the opportunity to use Google Apps, please describe any other content that you feel would have been helpful to include in the course.

**Focus Group Questions**

Thank you for taking the time to participate in this focus group. The purpose of the group is to find out how teachers are using Google Apps for collaboration with students and with colleagues.

1. Are you using Google Apps for Education? If not, please explain why.

2. Do you feel comfortable with your ability to use Google Apps for Education? If not, please explain why.
3. Are you having any issues in using Google Apps for Education?
4. Which Apps are you using most often and how are you using them?
5. What features are you using in the Apps? How are they useful?
6. Is there anything else that you would like to learn about Google Apps for Education?
7. Thinking back on what was covered in the course is there anything else that you think should be included?

## APPENDIX B. MATERIALS, SCHEDULES, OUTLINES, ETC.

### B.1 TABLE OF LEARNING EXPERIENCES AND INSTRUCTIONAL STRATEGIES

Behavioral Objectives for Learners	Type of Learning	Instructional Strategy	Rationale
<b>Goal 1: Teachers will be able to access and use Google Drive.</b>			
1.1. Upon completion of the instructional sessions, teachers will be able to access Google Drive without assistance.	Procedure/Application	Demonstration & modeling, recall	After following the steps presented by the instructor, the learner is encouraged to practice the procedure at their workstation.
1.2. Upon completion of the instructional sessions, teachers will be able to upload files and folders to their respective Google Drive.	Procedure/ Application	Explanation, demonstration, recall, practice	Learners are encouraged to develop a mental image of the steps required to upload files/folders, then practice the steps.

1.3. Upon completion of the instructional sessions on Google Apps for Education, the participant will be able to download files and folders from their Google Drive.	Procedure/ Application	Explanation, demonstration, recall, practice	Learners will be able to place individual files and folders on Google Drive.
<b>Motivational</b>	<i>Ask the learners for ways they would like to improve how they store data for their respective courses and students (Anticipated responses: thumb drives, CDs, portable hard drives). Explain that with minimal effort, anyone with basic computer skills and access to the Internet can create a central point for storing, organizing and accessing their files. In addition, they will be able to share the information with team members and peers.</i>		
<b>Initial Presentation</b>	<i>First, the instructor will present a lecture with a Google Presentation identifying the benefits of using Google Drive to improve organization and collaboration. Second, the instructor will demonstrate how to access the learner's Google Drive via the Internet. Third, the instructor will describe and demonstrate the steps required to create &amp; share folders and upload/download files.</i>		
<b>Generative Strategy</b>	<i>Have the learner practice the steps presented by the instructor. Once the learner is comfortable with the required steps, they will demonstrate the appropriate steps for creating, sharing, loading and uploading files/folders.</i>		
<b>Goal 2: Teachers will be able to access, create and share Google Documents.</b>			
2.1. Upon completion of the instructional sessions on Google Apps for Education, the participant will be able to create a new Google Document.	Procedure/ Application	Explanation, demonstration, recall, practice	Learners will create a new Google document.
2.2. Upon completion	Procedure/	Explanation,	Participants will

of the instructional sessions on Google Apps for Education, the participant will be able to share and edit a Google Document for the purpose of collaboration.	Application	demonstration, recall, practice	edit and share a Google Document.
2.3. Upon completion of the instructional sessions on Google Apps for Education, the participant will conduct research with Research Tool while working on the document.	Procedure/ Application	Explanation, demonstration, recall, practice	Participants will conduct research using the Google Research Tool.
<b>Motivational</b>	<i>Show a comparison between a standard Microsoft Word document and Google Document. Solicit responses from the learners on similarities between the two different programs. Point out the research tool and demonstrate how information from the Web can be located while still in the document.</i>		
<b>Initial Presentation</b>	<i>Using in-class presentation, demonstrate how to create, open, edit and share a Google Document. Emphasize the process does not require advanced word-processing skills. Demonstrate how to share the document with multiple users for collaboration. Show how to use the Research Tool while within the document.</i>		
<b>Generative Strategy</b>	<i>Have the learners demonstrate the steps required for creating and sharing a Google Document. Give a sample term in the document and ask the learners how they would use the Research Tool to gather information on the term from the Internet.</i>		
<b>Goal 3: Teachers will be able to access, create and share Google Spreadsheets.</b>			
3.1. Upon completion of the instructional	Procedure/	Explanation, demonstration,	Participants will create a custom

sessions on Google Apps for Education, the participant will be able to create a new Google Spreadsheet.	Application	recall, practice	Google Spreadsheet.
3.2. Upon completion of the instructional sessions on Google Apps for Education, the participant will be able to share and edit a new Google Spreadsheet for the purpose of collaboration.	Procedure/ Application	Explanation, demonstration, recall, practice	Participants will share and edit a custom Google Spreadsheet for collaboration.
3.3. Upon completion of the instructional sessions on Google Apps for Education, the participant will be able to insert and manipulate data in a Google Spreadsheet.	Procedure/ Application	Explanation, demonstration, recall, practice	Participants will insert and manipulate data in their respective Google Spreadsheet.
3.4. Upon completion of the instructional sessions on Google Apps for Education, the participant will be able to manipulate data using the functions and formulas in Google Spreadsheet.	Procedure/ Application	Explanation, demonstration, recall, practice	Participants will use functions and formulas to manipulate data.
3.5. Upon completion of the instructional sessions on Google Apps for Education, the participant will be able to construct a	Procedure/ Application	Explanation, demonstration, recall, practice	Participants will be able to construct a graph through collected data.



simple graph using data that has been collected Google in Spreadsheet.			
<b>Motivational</b>	<i>Ask learners to think of some ways they could benefit from using online spreadsheets. How could online spreadsheets benefit their students? Describe the benefits for learners and students by using a Google Spreadsheet.</i>		
<b>Initial Presentation</b>	<i>A Google Presentation will identify examples of how the learner can use online spreadsheets as well as examples for student use. First, the instructor will demonstrate the steps required to enter data into Google Spreadsheets. Second, the instructor will demonstrate how to manipulate data using cut &amp; paste. Third, the instructor will demonstrate basic formulas &amp; functions to manipulate data. Fourth, the instructor will demonstrate the required steps to create a graph from previously entered data.</i>		
<b>Generative Strategy</b>	<i>Learners will practice the steps presented by the instructor. Given sample data for student use, learners will demonstrate the steps required for creating, manipulating, formatting and graphing information.</i>		
<b>Goal 4: Teachers will be able to access, create and share Google Presentations.</b>			
4.1. Upon completion of the instructional sessions on Google Apps for Education, the participant will be able to create a new Google Presentation.	Procedure-Application	Explanation, demonstration, recall, practice	Participants will create and demonstrate a new Google Presentation.
4.2. Upon completion of the instructional sessions on Google Apps for Education, the participant will be able to customize the theme in Google	Procedure/ Application	Explanation, demonstration, recall, practice	Participants will create a customized theme in Google Presentation.

Presentation.			
4.3. Upon completion of the instructional sessions on Google Apps for Education, the participant will be able to share and edit a new Google Presentation for collaboration purposes.	Procedure/ Application	Explanation, demonstration, recall, practice, explanation, elaboration	Participants will create and share their files with colleagues.
4.4. Upon completion of the instructional sessions on Google Apps for Education, the participant will be able to create a new slide within Google Presentation.	Procedure/ Application	Explanation, demonstration, recall, practice	Participants will create new slides in Google Presentation.
4.5. Upon completion of the instructional sessions on Google Apps for Education, the participant will be able to insert an image in Google Presentation.	Procedure/ Application	Explanation, demonstration, recall, practice	Participants will insert images in Google Presentation.
4.6. Upon completion of the instructional sessions on Google Apps for Education, the participant will be able to insert a video in Google Presentation.	Procedure/ Application	Explanation, demonstration, recall, practice	Participants will insert videos in Google Presentation.
<b>Motivational</b>	<i>Identify with learners how developing presentations online using Google Presentation would make it easy to share and collaborate on various projects. Give examples of how learners</i>		

	<i>can benefit from the online capability of Presentation for themselves and their students.</i>		
<b>Initial Presentation</b>	<i>The instructor will identify and demonstrate the various ways of how to start using Google Presentation. First, the instructor will demonstrate how to create a blank presentation from the drop-down menu. Second, the instructor will demonstrate how to create a presentation from a template. Third, the instructor will use a pre-developed presentation to demonstrate how to upload and convert a file into Google Presentation. Fourth, learners will be shown how to insert images and select various backgrounds. Fifth, the instructor will demonstrate how to insert video into a prepared Presentation.</i>		
<b>Generative Strategy</b>	<i>Allow learners to practice the various ways to create a Google Presentation. Learners will then demonstrate the steps required to create a Presentation by one of the three methods covered in the lesson. Learners will modify the presentation to include images, backgrounds and a video clip.</i>		
<b>Goal 5: Teachers will be able to access, create and share Google Drawings.</b>			
5.1. Upon completion of the instructional sessions on Google Apps for Education, the participant will be able to create a new Google Drawing file.	Procedure/ Application	Explanation, demonstration, recall, practice	Participants will create a new drawing in Google Drawing.
5.2. Upon completion of the instructional sessions on Google Apps for Education, the participant will be able to share and edit a new Google Drawing for collaboration purposes.	Procedure/ Application	Explanation, demonstration, recall, practice	Participants will collaborate by sharing and editing a new Google Drawing.

5.3 Upon completion of the instructional sessions on Google Apps for Education, the participant will be able to conduct research with Research Tool in Google Drawing.	Procedure/Application	Explanation, demonstration, recall, practice	Participants will use the Research Tool in Google Drawing.
5.4. Upon completion of the instructional sessions on Google Apps for Education, the participant will be able to insert Drawings into Google Document, Spreadsheet, and Presentation.	Procedure/ Application	Explanation, demonstration, recall, practice	Participants will use Google Drawings in conjunction with Document, Spreadsheet and Presentation.
<b>Motivational</b>	<i>Learners will be presented examples of various items that can be created using Google Drawings.</i>		
<b>Initial Presentation</b>	<i>A lecture presentation using Google Presentation will identify the key uses of Google Drawing The instructor will demonstrate how to create a mind map, graphic organize and labeling feature. Next, the instructor will demonstrate how to edit, use the Research Tool and share a drawing with others.</i>		
<b>Generative Strategy</b>	<i>Learners will practice creating various drawings, focusing on those applicable to their specific area(s) such as a mind map or graphic organizer. As a final activity for the training session, learners will use the Research Tool to add information from the web to their selected Drawings such as images or link to information.</i>		

## B.2 MATERIALS FOR TRAINING PROGRAM

## B.3 IMPLEMENTATION SCHEDULE

- May 2014
- conduct formative evaluations (interview) with Instructional Design expert
  - conduct formative evaluation (interview) with Google Apps for Education trainer
  - reserve computer lab for August in-service training sessions
  - determine PD/CEUs for teacher participation
- June 2014
- conduct pre-instructional sessions survey/questionnaire
  - conduct needs assessment
  - submit instructional sessions to PD master schedule
- July 2014
- finalize training materials and copies for attendees
- Aug. 2014
- prior to training start, verify operation of computer lab and Internet
  - conduct training sessions at respective locations
  - conduct formative evaluations
- Sept. 2014
- make revisions to training as necessary
  - consider possible session at start of spring session for new hires
- Oct. 2014
- conduct summative evaluation through Google Forms for attendees
- Nov. 2014
- evaluate results from surveys
  - adjust training materials/lessons as required
- Feb. 2015
- hold focus group for selected participants from the initial training class

