

Setting Data Limit Notifications on an Android Smartphone

Tanya Demmel

Capella University

Setting Data Limit Notifications on an Android Smartphone

Topic Selection

Topic:

The topic of this design project is how to complete the steps for setting data limit notifications in an Android smartphone.

Goal of Instruction:

The goal is for the learner to successfully set the limit notifications in the phones data widget based on bill cycle and data package with 100% accuracy upon completion of this lesson.

Rationale:

I am qualified in this topic because I train wireless customer service representatives on walking customers through this process when assisting the customer with data questions. This project is intended to make the process less intimidating for the learner by breaking it down into simple steps. A time limit of 20 minutes for this lesson is suitable for the learner to grasp the concept. It takes a seasoned representative approximately 10 minutes to walk a novice smartphone customer through the process allowing twice that amount of time is sufficient for novice learners to learn the process and practice new skills. Setting up the data limit notifications in an Android smartphone is an intellectual skill because it will require the learner to follow the rules of bill cycles and data packages and use problem solving skills to set the parameters in the phone according to these rules (Gagne, Wagner, Golas, & Keller, 2005). This is considered an intellectual skill because the learner must be able to recall where the icons are at on the screen

and identify the data cycle to program in the phone based on the bill cycle close date. With successful completion of the course the learner will be able to assist customers set up their data notifications. Customers who understand how to use their devices rate their wireless carrier higher on standard surveys including JD Powers and Neilson Ratings, this in turn leads to company profitability and sustainability.

Learner Analysis

Prerequisite knowledge, skills and attitudes:

Prior to completing the android data notifications course the learners will need to have assisted customers using available tools in navigating their smartphone by providing specific instructions on the phone. More hands on experience with an Android smartphone will enhance the learners experience in the course. Customer service representatives must be able to navigate the knowledge base system to locate information on a customer's device make and model. The ability to communicate clearly is essential for the representative to assist the customer. Representatives will need to demonstrate a patient demeanor at all times to avoid causing the customer any unnecessary stress from the act of programming their phone.

Physical traits necessary for the instructional experience:

Customer service representatives will need to be able to manipulate a mouse and keyboard with or without accommodation to locate resources in the knowledge base system that will assist them in walking the customer through setting up data notifications on their Android smartphone. Representatives will need to be able to read computer screens with or without accommodation. Sitting for a period of twenty minutes will be required for this course.

Top learner characteristics:

Learners will vary in age from teenager to senior citizen. Out of 250 employees to be trained educational levels will vary from completed high school or equivalent to currently enrolled in graduate level courses. Customer service representatives have experience in customer service ranging from first customer service job to lifelong employment in customer service jobs. The demographics of the group will include approximately 70% female and 30% males from diverse cultural backgrounds with English as a first language.

Learning attitude, motivation, biases, and job satisfaction:

Because of the current low morale in the call center the motivation to learn will be lacking in most representatives with some representatives approaching the course with a positive attitude. Despite the wide range of participating learners the most challenging obstacle to overcome will be the motivation the learner will need to learn and share the learning with their customers.

Other relevant characteristics:

Learning styles will vary for each learner and will include auditory, kinesthetic, and visual learners. Taking into consideration the diverse group to be trained the training will need to contain components to reach each of these learning types either in the media use to present the material or activities used to practice the learning.

Job Analysis**Job title:**

Customer Service Representative

Job descriptions:

Vital job functions required of every customer service representative ensure customer satisfaction through providing value and resolution includes the following.

- Take inbound calls for wireless customer service, resolving customer requests and concerns using available resources.
- Analyze customer accounts and identify solutions to offer the customer better value.
- Call customers to continue resolving the customers concerns at their convenience.
- Secondary job functions expected of customer service representatives ensure quality communication that helps to evolve processes for efficient customer service.
- Provide leadership with information regarding system issues immediately to ensure prompt resolution.
- Contribute to the formation and modification of company processes by using appropriate feedback tools to offer suggestions for improved efficiency.

Job tasks:

Tasks essential for job function include:

- Operate computer mouse.
- Navigate multiple software programs.
- Talk to customers on the telephone.
- Read and comprehend directional material.
- Explain steps clearly and concisely in a manner customers can understand.

Tasks that will enhance this position:

- Navigate an Android smartphone.
- Explain open source platform applications.

- Compare and contrast Android operating systems with other smartphone operating systems.
- Download and install applications and software on a smartphone.
- Calculate data usage.
- Calculate charges based on data usage.

Pre-requisite training or learnings:

Prior to taking the android data limits course customer service representatives will need to have successfully complete the initial training curriculum required of all new employees.

Task Analysis**Goal of Instruction**

The goal is for the learner to successfully set the limit notifications in the phones data widget based on bill cycle and data package with 100% accuracy upon completion of this lesson.

Tasks

1. Power on the device. This basic step is required to complete any function on the device and ultimately to use and enjoy the device.
 - a. Press and hold the power button for 3-4 seconds.
 - b. Wait for the phone to load settings completely, approximately 1-2 minutes.
2. Access data settings. It is important to understand how to access the data settings as the user may want to modify these settings as what they are using their device for will evolve

over time. Parents will also want to understand this because they will be able to set limits for their children thus reducing the worry of overage costs.

- a. Pull down the notification bar by dragging your finger from the top of the screen to the bottom.
 - b. Tap on settings; it looks like a gear at the top of the notification screen.
3. Access data usage. Once in the data settings it is essential for the user to differentiate between the options available, this is the only option that will allow the user adjust the internal settings on the device to alert them at specified data thresholds.
 - a. Tap on data usage in the settings screen
4. Set mobile data limit. For the notification process to work there has to a maximum amount of data usage set in the application so that it does not shut off data access prematurely or late.
 - a. Tap set mobile data limit bar to place a green checkmark in the box.
 - b. Tap the red line in the chart underneath the data usage cycle date.
 - c. Tap the number in the middle of the popup window.
 - d. Type in the data limit in MB
 - e. Tap set.
5. Set the warning level. This is the step users will want to complete to know when they are reaching their data limit. The notification allows for the user to identify how much data they have left and how many more days in their billing cycle are left to decide how to proceed with their data usage for the remainder of the cycle.
 - a. Tap the orange line in the chart underneath the data usage cycle date.

- b. Tap the number in the middle of the popup window.
 - c. Type in the data limit in MB
 - d. Tap set.
- 6. Set data usage cycle. Without the data usage cycle the previous steps would be in vain because the application needs to have a time frame as to when the data will replenish. If there is no data usage cycle set the device would send the notification, shut off the data, and never re-establish the data access without manual intervention thus defeating the purpose of the application.
 - a. Tap box by data usage cycle
 - b. Tap change cycle at the bottom of the list
 - c. Tap the up or down arrow to change number to first day of the billing cycle.
 - d. Tap set.
 - e. Push the home button, the data usage notifications are now set.

Questions related to the tasks for the SME's (Piskurich, 2006)

1. What tools are required for a representative to walk a customer through the tasks?
2. Are there additional steps that may need to be taken on occasion that are not outlined in the tasks? What are they and how will the representative know how to navigate through them?
3. What tools are available for the representative to direct a customer to, to assist in these tasks?

Performance Objectives and Measurements**Objectives**

1. Using an Android smartphone with software version 4.0 or higher (situation) the learner will demonstrate (LCV) how to power on the device (object) by pressing the power key (action) on the device for three seconds.
2. Using an Android smartphone with software version 4.0 or higher (situation) the learner will demonstrate (LCV) how to access the data settings (object) by dragging their finger from the top of the screen to the bottom (action) to access the notification bar and tap the settings icon.
3. Using an Android smartphone with software version 4.0 or higher (situation) the learner will demonstrate (LCV) how to access the data usage screen (object) by tapping on the data usage field (action) in the settings screen.

Measurements

1. The learner will be successful in completing the first objective when the Android smartphone is powered on and displays the home screen.
2. The learner will be successful in completing the second objective when the settings screen is open on the Android smartphone device.
3. The learner will be successful in completing the third objective when the data usage screen is open on the Android smartphone device.

Design Instructional Sequence, Sequencing of Objectives, and Instructional Strategies

Sequencing of Objectives

Sequence Strategy: A logical sequencing as described by Piskurich (2009) is a sequencing that follows a particular logical path because that is the path that makes sense. Logical sequencing will be used in the design of this instruction. This sequencing strategy uses a step by step process for moving from the one objective to the next objective.

Rationale: The reason for using logical sequencing is because the process of setting data notifications on an Android smartphone is a series of steps. The first step must be completed followed by steps two, three, and so on. The steps must be completed in order because it is necessary to complete the prior steps to access the appropriate fields for the following steps. The steps cannot be completed out of order because they are only available in this sequence.

Instructional Strategies

1. Objective 1: Using an Android smartphone with software version 4.0 or higher (situation) the learner will demonstrate (LCV) how to power on the device (object) by pressing the power key (action) on the device for three seconds.

Instructional Event	Instructional Strategy
1. Capture the attention of the learner.	Describe common call type of customers calling about data overages.
2. Describe to learners what performance objectives are to be achieved.	List the objectives on the second slide.
3. Help learners recall prerequisite learning.	Have learners locate the “Device How To” tool in their knowledge base system.
4. Present instruction to facilitate learners’ achievement of performance objectives.	Show picture of device being powered on with step by step instructions displayed for learner to read.
5. Guide the learners through	Request that learners follow the same

the materials so they begin to meet the objectives.	technique to power on the demonstration device after observing the demonstration.
6. Prompt the performance.	Have learners power on the device.
7. Give feedback to the learners.	Explain to learners that once the device is turned on they will have successfully completed the objective.
8. Evaluate how well the learners are beginning to achieve the objectives.	Learners will be able to demonstrate powering on a device. Learners will pass short quiz at end of all three objectives.
9. Work toward helping the learners retain what they have learned and apply it.	Learners will be able to assist a customer to power on a device.

4. Objective 2: Using an Android smartphone with software version 4.0 or higher

(situation) the learner will demonstrate (LCV) how to access the data settings (object) by dragging their finger from the top of the screen to the bottom (action) to access the notification bar and tap the settings icon.

Instructional Event	Instructional Strategy
1. Capture the attention of the learner.	Explain to learners the ease of access settings in an Android smartphone with software 4.0 or higher.
2. Describe to learners what performance objectives are to be achieved.	Display the objective on the screen.
3. Help learners recall prerequisite learning.	Have learners locate steps on accessing settings in their “Device How To” tool in their knowledge base.
4. Present instruction to facilitate learners’ achievement of performance objectives.	Show how to access settings in two pictures and list the steps for learners to read.
5. Guide the learners through the materials so they begin to meet the objectives.	Have the learner demonstrate the same techniques after observing the accessing of

	settings demonstration.
6. Prompt the performance.	Have learners access settings.
7. Give feedback to the learners.	Explain to learners that once the settings screen is open (it will look like the example picture on the slide) they will have successfully completed the objective.
8. Evaluate how well the learners are beginning to achieve the objectives.	Learners will be able to demonstrate accessing settings. Learners will pass short quiz at end of all three objectives.
9. Work toward helping the learners retain what they have learned and apply it.	Learners will be able assist customers with accessing their device settings.

5. Objective 3: Using an Android smartphone with software version 4.0 or higher
(situation) the learner will demonstrate (LCV) how to access the data usage screen
(object) by tapping on the data usage field (action) in the settings screen.

Instructional Event	Instructional Strategy
1. Capture the attention of the learner.	Explain to learners the ease of accessing the data settings on an Android smartphone with software version 4.0 of higher.
2. Describe to learners what performance objectives are to be achieved.	Display the objective on the slide.
3. Help learners recall prerequisite learning.	Have learners locate steps to access data settings in their “Device How To” tool in their knowledge base.
4. Present instruction to facilitate learners’ achievement of performance objectives.	Show in one picture how to access the data settings and list the steps on the slide.
5. Guide the learners through the materials so they begin to meet the objectives.	Have the learner demonstrate the same techniques after observing the accessing of data usage settings.
6. Prompt the performance.	Have learners access data usage settings.

7. Give feedback to the learners.	Explain to learners that once the data settings screen is open (it will look like the example picture on the slide) they will have successfully completed the objective.
8. Evaluate how well the learners are beginning to achieve the objectives.	Learners will be able to demonstrate accessing the data settings. Learners will pass short quiz at end of all three objectives.
9. Work toward helping the learners retain what they have learned and apply it.	Learners will be able to assist customers with accessing the data settings on their device.

Ethical, Legal, and Political Implications

In the design of this course there are some ethical and legal considerations to be made, however, no political considerations could be determined. Legally the use of the Android brand will need to be used correctly and within copyright laws. Also the images of the device demonstrations will need to also follow the copyright laws and agreements with the manufactures of the devices. Ethically the course needs to address the target audience at their level presenting the information in a manner that is over simplified or overly complex would lead to the learners inability to learn the process correctly. It is important for the learner to learn the process correctly because the learners job performance is measured and specific levels must be met in order for the learner to maintain their employment. Presenting the information in a manner that would cause the learner to fail to learn it would be unethical because it could cause the loss of the learners employment.

Instructional Package

Learner Guide Sheet

How to use the instructional materials:

1. Read through all of the instructional materials before you begin.
2. Access the appropriate steps in the “Device How To” tool as guided by the instructions.
3. Review the images of the task and read the step by step instructions.
4. Complete the task as described in the instructions.
5. Confirm you have completed the task successfully for each objective by comparing your device to the image of the device at the end of the objective.
6. Move on to the next objective once you have completed each step successfully.
7. Complete the assessment once you have completed the objectives.

Objectives:

- Using an Android smartphone with software version 4.0 or higher (situation) you will demonstrate (LCV) how to power on the device (object) by pressing the power key (action) on the device for three seconds.
- Using an Android smartphone with software version 4.0 or higher (situation) you will demonstrate (LCV) how to access the data settings (object) by dragging their finger from the top of the screen to the bottom (action) to access the notification bar and tap the settings icon.

- Using an Android smartphone with software version 4.0 or higher (situation) you will demonstrate (LCV) how to access the data usage screen (object) by tapping on the data usage field (action) in the settings screen.

Time required for completion of the instruction: It should take approximately 20 minutes to complete the practice activities and the assessment.

Draft of Instructional Materials

Lesson Objective:

Using an Android smartphone with software version 4.0 or higher you will demonstrate how to power on the device by pressing the power key on the device for three seconds.

Introduction:

As you are aware one of the most common call types we have from our customers are customers who have exceeded their data limit and do not understand how they did so. As a trusted advisor to the customer you can help them set up data notifications in their Android smartphone with software version 4.0 or higher. The first step in this process is to have the customer power on their device.

Content related to objective:

Recall from your initial training the “Device How To” tool that included steps on every devices functions that you can use to help assist your customers learn to navigate their new

device. Please access the “Device How To” for the device you were provided prior to this training and locate the steps to power on the device.

Practice Exercise:

Step 1: Locate and press the power key for three seconds.



(How to Guides, 2014)

Step 2: Release the power key and wait for the device to load.



(Samsung Galaxy S4 Stuck On Samsung Logo, Can't Boot

Completely, 2013)

Feedback:

Once your screen appears as the one below you have successfully powered on the device and are ready for the next objective.



(Handy Galaxy S4 Active tips and tricks, 2013)

Lesson Objective:

Using an Android smartphone with software version 4.0 or higher you will demonstrate how to access the data settings by dragging their finger from the top of the screen to the bottom to access the notification bar and tap the settings icon.

Introduction:

Once the device is powered on and completely loaded then the customer will need to access their settings. There are many ways for the customer to access the settings. The easiest process will be used for this objective.

Content related to objective:

At this time you will need to use your “Device How To” tool and access the steps for opening the settings menu.

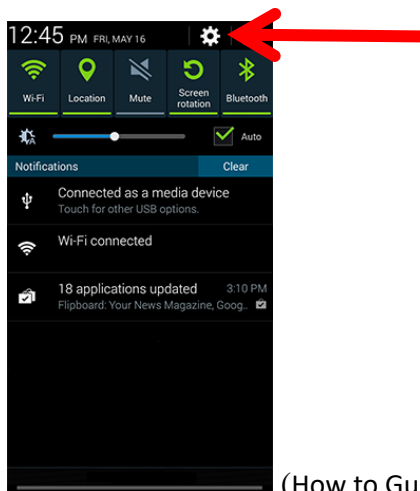
Practice Exercise:

Step 1: Slide your index finger from the top of the screen to the bottom of the screen to access the notifications bar.



(How to Guides, 2014)

Step 2: Tap the settings icon.



(How to Guides, 2014)

Feedback:

Once the screen looks the like the one below you have successfully accessed the settings and are ready to move to the next objective.



(How to Connect Samsung Galaxy S4 to TV, n.d.)

Lesson Objective:

Using an Android smartphone with software version 4.0 or higher you will demonstrate how to access the data usage screen by tapping on the data usage field in the settings screen.

Introduction:

Once the customer has accessed the settings screen they will need to access the data usage screen.

Content related to objective:

Locate the steps to access the data usage screen in your “Device How To” tool.

Practice Exercise:

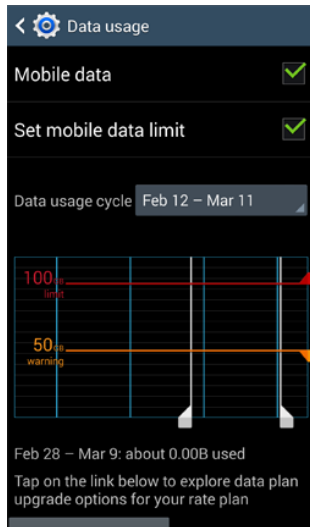
Step 1: Tap the data usage bar.



(How to Connect Samsung Galaxy S4 to TV, n.d.)

Feedback:

Once your screen looks like the one below you have successfully completed the objective and you are ready to start the assessment.



(How to Guides, 2014)

Test

1. Place the following steps in order 1-4 starting with the first step.

_____ Tap the data usage bar.

_____ Power on the device

_____ Tap the settings icon

_____ Open the notification bar with a swipe

2. What can the customer use the data usage screen for?
3. True or False: The process for accessing data usage for an Android smartphone with operating system 4.0 or higher is the same.
4. What tool would you use to assist the customer in accessing their data usage screen?
5. Demonstrate accessing the data usage screen to your manager.

References

Gagne, R. M., Wagner, W. W., Golas, K. C., & Keller, J. M. (2005). *Principles of instructional design* (5th ed.). Belmont, CA: Thomson Wadsworth.

Handy Galaxy S4 Active tips and tricks. (2013, August 1). Retrieved September 10, 2014, from <http://www.digitaltrends.com/mobile/galaxy-s4-active-helpful-tips-and-secrets/>

How to Connect Samsung Galaxy S4 to TV. (n.d.). Retrieved September 10, 2014, from <http://blog.vtechsquad.com/2013/06/14/how-to-connect-samsung-galaxy-s4-to-tv/>

How to Guides. (2014, January 1). Retrieved September 10, 2014, from http://www.samsung.com/us/support/supportOwnersHowToGuidePopup.do?howto_guide_seq=7066&prd_ia_cd=N0000003&map_seq=48258

Piskurich, G. M. (2006). *Rapid Instructional Design* (2nd ed.). San Francisco, CA: Pfeiffer.

Samsung Galaxy S4 Stuck On Samsung Logo, Can't Boot Completely. (2013, November 1). Retrieved September 10, 2014, from <http://thedroidguy.com/2013/11/samsung-galaxy-s4-stuck-samsung-logo-cant-boot-completely-76972#148mwdW4a8Ef2vRd.97>