

Bureau of Engraving and Printing Tactile Feature Program: Small Panel Interview Protocol Script

INTRODUCTION

Thank you for agreeing to participate in our testing of tactile features to be incorporated into future U.S. Currency. Let me share the process and its components to help educate you of the raised tactile feature and our service and commitments during its development with you.

The Bureau of Engraving and Printing produces all of the nation's paper currency, which is then issued by the Federal Reserve. The BEP is planning to add tactile symbols to paper money so that blind and visually impaired people can use their sense of touch to denominate different sample bills, that is, determine whether the sample bill is a \$5, \$10, or \$20, for example. We are still conducting research, in an attempt to find the most efficient and practical symbols to use for the B&VI Community. .

During this process, I'll be asking you to hold and feel different samples with raised tactile symbols to identify either the number or type of symbol which are the most perceptible to you. Explain the entire process or procedure here if applicable.

Notifications

Paperwork Reduction Act Notifications

Before we get started, I have to provide you several notifications required under the Paperwork Reduction Act (PRA). The questions being asked and your responses constitute a collection of information that is subject to the requirements of the PRA.

- The purpose of this information collection is to determine which tactile features may be the most effective in providing a means of assisting blind and visually impaired individuals in denominating U.S. paper currency.
- The information provided during this collection of information will be reviewed by the BEP, the Department of The Treasury, The Federal Reserve Board, The Federal Reserve Bank – Currency Technology Office, and the US Secret Service. The information will help these agencies analyze and collaborate on what type of tactile features are most effective.
- We estimate it will take 30 minutes for you to answer the questions being asked today.
- You are advised that your participation is completely voluntary, there is no obligation for you to provide responses, and you can decide to end the testing at any time.
- I want to assure you that the BEP will in no means collect any personally identifiable information (PII) from you today. You will not be asked your name, address, phone number, social security number, birthday, or any other information that could be used to personally identify you.
- BEP will keep collected data information private to the extent permitted by law and will not include any PII. The BEP may, however, share the results of this information collection with other agencies for the purposes of tactile feature development. In addition, BEP is obligated to provide records in response to requests submitted under the Freedom of Information Act. Again, please note that no information that can identify you personally will be collected today.
- BEP is obligated to inform you that today's information collection must be conducted under a valid control number issued by the Office of Management and Budget (OMB). The information collection being conducted today has been

approved by OMB pursuant to a generic approval process, under the OMB control number 1520-0009. The clearance is posted on the OMB Office of Information and Regulatory Affairs Information Collection Review Dashboard, available at www.reginfo.gov.

INTRODUCTION TO RESPONDENT TASKS

In all tasks, the interviewer will hand bills to the respondent one at a time, with the symbols on the upward facing side, from the respondent's perspective. The respondent will feel each bill and state whether or not the bill has any tactile features on it and identify either the number of features.

Task 1: Introductory task to familiarize the respondents with the banknotes and testing process

Today we will test our raised tactile feature (RTF) prototype denomination scheme in two different application methods. Each set will have symbols representing five currency denominations (dollar bills), the \$5, \$10, \$20, \$50, and \$100. (You may have to let them know that the \$1 by law cannot be changed and will

have no tactile feature) Our scheme consist of a four position symbol pattern on the right-hand side of the face of the sample with dots following the symbols (“stop” pattern) The symbols are in the form of rectangles which you should be able to feel with your fingers. By doing so you will be providing us feedback to help us study an important question—what is the best shape or pattern and application method to make the tactile identification of currency possible?

So what I’m going to do is run you through a series of tasks with these test samples. For each task, we’ll do it several times because I’m going to be handing you different samples and asking you questions about them. Initially we will walk you through a familiarization with a set of the RTF prototypes in each of the application methods and then I will provide you the sets in random order for you to identify the denomination. We will time this last round for our informational purposes only. The key will be to determine if the specific RTF denomination can be accurately identified. Finally, to gather more information about the quality of the feature, we will ask you to rate how easy or hard it was to feel the feature, a sort of confidence factor for your use of the feature in commerce.

This first task is a task to get you familiar with the tactile features on the bills. I’ll be asking you to hold a bill. When we do this, we’ll start with you holding the bill the exact same way each time. Hold this bill for a moment (*interviewer hands a bill to the respondent*). When I hand you a bill, hold it with your right hand between the thumb and forefinger (pause for R to get into this position), and with your left hand, keep your thumb and forefinger on the lower corner of the bill, away from the symbols. And we’d like you to keep the bill up off of the table. This is what we call the “starting position.”

You will feel across the bill and determine if you feel raised symbols on the bill. Remember, we will test two different applications for each set of bills

For this first task, I'll give you a sample bill to hold in the starting position. You will use your fingers to feel across the bill and determine if you feel raised symbols on the bill. When you have completed feeling the bill, I'd like you to tell me whether or not the sample bill had any raised feature on it and if so how many. If there are two raised features I'll ask if they were starting from the top or the middle. All right? Let's start the familiarization- here's the first sample bill.

[Make sure R is in the correct starting position for each trial]

This first bill has single rectangle starting at the top of the right-hand side of the bill. After the rectangle shape, you should feel a series of alternating dots under the rectangle, which simulates our "stop" pattern, meaning there are no more rectangles on the note. The number of rectangles will identify the denomination of the currency, i.e. one rectangle=\$5, two=\$10, 3=\$20 and 4=\$50, but you just have to tell me how many you feel. There is one exception to this and that is for the \$100 bill. It will have two rectangles in the center on the right-hand side with the "stop" pattern dots at the top of and below the two rectangles. (See *Figure 1. below*)

Could you feel the tactile feature, the rectangle, on the bill? How many? (Please say the number of tactile features or say none if the sample bill has no tactile features on it at all).

(Repeat this process for each remaining denomination (\$10, \$20, \$50, \$100))

This set of RTF samples was produced by a method called Intaglio, the current method we print money. Next we will let you feel the other application method we are testing, called Coated-

Embossing, and we will go through the same familiarization process.

(Repeat the same process as previously done with the Intaglio samples, this time with the Coated-Embossed samples.)

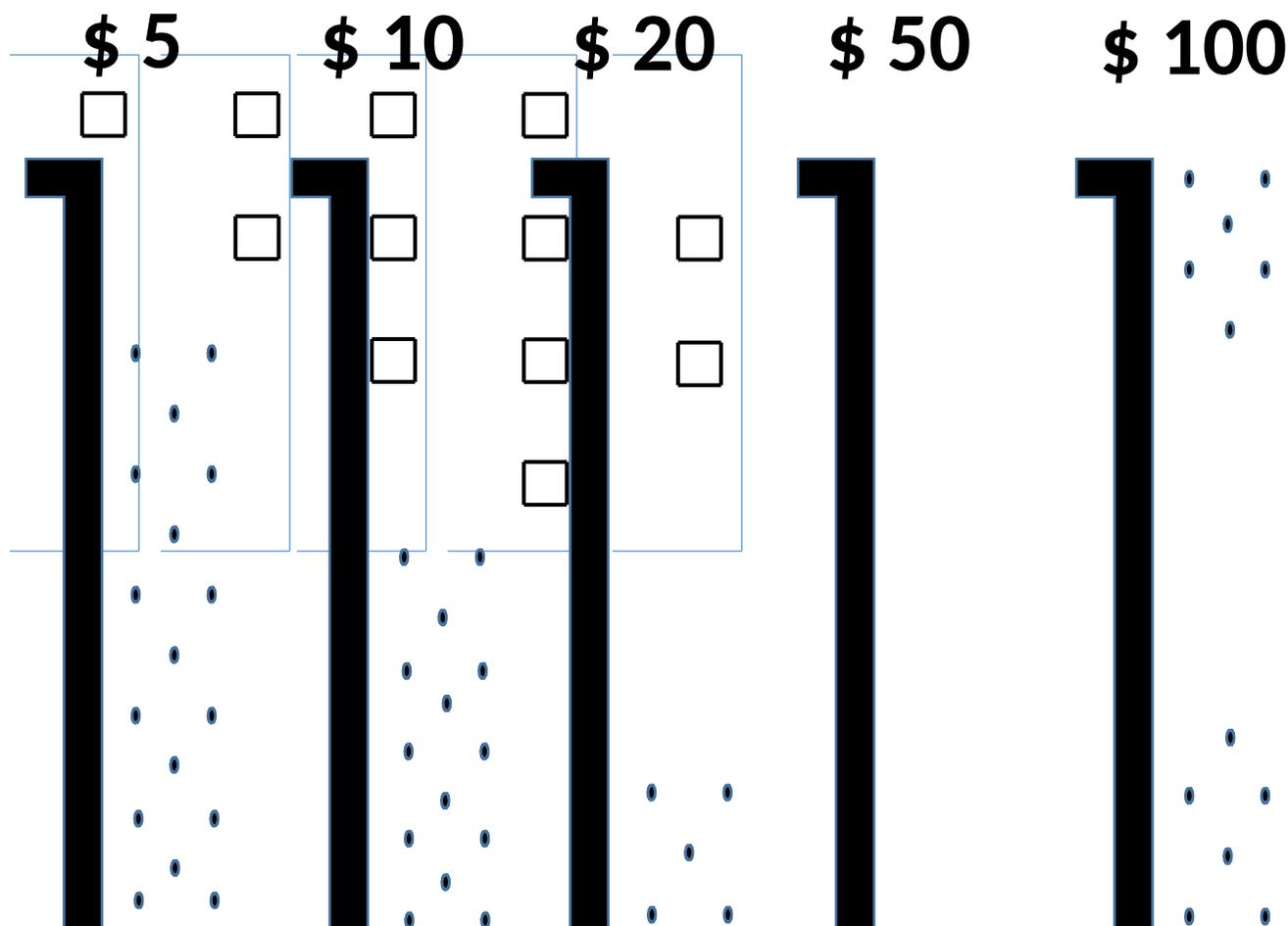


Figure 1. The configurations of the symbols on the bills

Once the familiarization is completed, conduct the following practice test.

In this task, the interviewer will place a stack of five bills on the table in front of the respondent. The five bills in the stack bear the five symbol configurations noted above Figure 1 in random

order. The symbols on all five bills in the stack will all be of the same type: intaglio/rectangle, or coated embossed /rectangle, When the respondent is ready the interviewer will say “Go” and start the timer. The respondent picks up the top bill in the stack, feels for the symbols, reports the number of tactile features, drops the bill, picks up the next bill in the stack, and repeats this process until no bills remain in the stack. The interviewer will record the respondent’s accuracy in identifying the number of symbols on each bill and how much time elapses. The interviewer will also record the respondent’s commentary on the ease of use.

When the respondent finishes the practice stack of five bills, the interviewer will note the time, rating, and any comment before starting the actual test.

For this task, I’ll be putting a stack of bills in front of you. Each of the bills in the stack will have 1, 2, 3 or 4 tactile features, rectangles, on the right-side of the bill. If it has 2 features, they will start at the top or in the middle.

What I’d like for you to do is pick up one bill at a time. Feel the bill any way you like and then tell me how many symbols are on the bill and if they start in the middle. Do this, one bill after another, until you reach the last bill in the stack. I’d like you to do this as quickly as you can, but most importantly, I need you to be accurate too, okay? I’ll also ask you to rate how easy or difficult it was. We will do this once for practice and then we will have two rounds for the actual testing.

Ask, “Are there any questions before the practice round”.

All right then, let me know when you are ready and I’ll say “Go” and I’ll start timing.

(Record the respondent’s results for the practice round and ask them to rate the sample on a scale of 1-5, Difficult-to-Easy, to

feel/ID the feature, representing their confidence of using the feature in commerce.

Ask if there are any questions before starting the two rounds of testing.

(This process will be conducted 2 more times. Time each stack separately. Start the timer the moment that the respondent starts. Stop the timer the moment that the respondent states the number of features on the final sample bill in the stack. Ask them to rate the samples on a scale of 1-5, Difficult-to-Easy, to feel/ID the feature, representing their confidence of using the feature in commerce.)

Task 2: Accuracy task with stacks of bills (RTF Application Testing)

In this task, the interviewer will place a stack of five bills on the table in front of the respondent. The five bills in the stack bear the five symbol configurations noted above Figure 1 in random order. The symbols on all five bills in the stack will all be of the same type: intaglio/rectangle, and coated embossed /rectangle, When the respondent is ready the interviewer will say "Go" and start the timer. The respondent picks up the top bill in the stack, feels for the symbols, reports the number of tactile features, drops the bill, picks up the next bill in the stack, and repeats this process until no bills remain in the stack. The interviewer will record the respondent's accuracy in identifying the number of symbols on each bill and how much time elapses. The interviewer will also record the respondent's commentary on the ease of use.

When the respondent finishes the first stack of five bills, the interviewer will present the next (last) stack. The two stacks include one each of the two types of application methods (Intaglio and Coated-Embossing).

For this task, just like in the practice round, I'll be putting a stack of bills in front of you. Each of the bills in the stack will have 1, 2, 3 or 4 tactile features, rectangles, on the right-side of the bill. If it has 2 features, they will start at the top or in the middle of the bill.

What I'd like for you to do is pick up one bill at a time. Feel the bill any way you like, but do not hold the bill against the table. Then tell me how many symbols are on the bill and if they were spaced far apart. Do this, one bill after another, until you reach the last bill in the stack. I'd like you to do this as quickly as you can, but most importantly, I need you to be accurate too, okay? After each stack I'll ask you to rate how easy or difficult it was. .

All right then, let me know when you are ready and I'll say "Go" and I'll start timing.

(Do this 2 times: once for each application method stack. Time each stack separately. Start the timer the moment that the respondent starts. Stop the timer the moment that the respondent states the number of features on the final sample bill in the stack. After each stack, ask the respondent to rate the difficulty on a 1-5 scale, 5- very easy and 1-very difficult.)

Record the results in a table similar to the following for stacks A & B.

Task A

	Correct	Incorre ct
A3	•	•
A4	•	•
A1	•	•
A2	•	•
A2M	•	•

Time: _____

Rating (1-5) _____

STACK A: On a scale from 1 to 5, where 5 is very easy and 1 is very difficult, how easy or difficult was it to count the number of tactile features? _____

This will be continued and repeated for Task A and B corresponding to Table 1 below:

Sample ID/Task	Print Method	Prototype Scheme
A	Intaglio	Rectangle/"Stop" Pattern
B	Coat-Embossing	Rectangle/"Stop" Pattern

Table 1.

(First letter equals the application method from Table 1 above and the following number/letter) is the denomination (bill \$ amount) from Table 2 below)

Rectangle Features	Denomination	Note
1	\$5	1 Feature starting from the Right Top
2	\$10	2 Features starting from the Right Top
3	\$20	3 Features starting from the Right Top
4	\$50	4 Features starting from the Right Top
2M	\$100	2 Features starting in Right Middle

Table 2.

Upon completion of the testing, thanks the participant for assisting us in the development of this tactile feature and ask them if they have any additional questions or comments that may be useful in our currency RTF development.