

## Cognitive Assessment Testing

The key features of FACTS are that it is an individually administered, one-on-one functional test of the cognitive skills required for independent travel. It can be administered in any reasonably large space which does not have to be exclusively reserved for this purpose. There should also be access to some other definable space (e.g. a separate corner of a large room or another room) that can serve as a waiting area. During standardization, for example, the FACTS prototype was administered in large Therapeutic Activities Centers and workshops where other activities were going on in other parts of a large common space, in a conference room, a classroom and in a large office. FACTS takes about 30 minutes to administer although additional time is required for scoring. It was administered by two trained paratransit staff members who were shown to be able to administer and score the test reliably.

Most of the stimuli are clear, professional-level colored photographs shown in a large booklet or back projected as slides on a table top unit. For one subtest (route finding) ten colored posters of environmental scenes are laid out in a pre-arranged order to serve as landmarks. FACTS emphasizes functional responses (e.g. verbal or non-verbal responses are acceptable provided the respondents' intention is clear) and it is hierarchically organized, proceeding from easy to harder items such that the test can be discontinued when individuals' competence is exceeded to avoid causing them distress. FACTS assesses ability to learn as well as current competence and it is modeled on existing criterion referenced assessment devices such as the Vineland Social Maturity Scale and ecologically valid psychological tests such as the Rivermead Behavioral Memory Test. Particular attention was devoted to the development of a clear, unambiguous script to ensure standard, objective presentation of the stimuli and scoring of responses.

FACTS is organized into four main scoreable sections reflecting (i) General Orientation, (ii) Community Skills and Safety, (iii) the ability to learn a simulated Simple Trip involving one bus, and (iv) a more Complex Trip involving two buses with distinct destinations. The Complex Trip is attempted only by those individuals who have demonstrated the ability to master the Simple Trip. The two bus trip sections use a "train and test" format in which applicants are first trained in each component of the task separately (e.g. selecting the correct bus) and then tested to see whether they have mastered it. If not, the task is re-trained and they are re-tested. Up to three training trials are provided for each individual component of the task.

When each component has been trained individually, applicants are asked to link them together and "travel" the whole simulated trip including selecting the right bus, identifying and showing their bus pass to the driver, selecting the right exit stop, signaling the bus to stop and traveling the appropriate route through the simulated neighborhood to their eventual destination. Scores are assigned for each component of the task and total scores for each section (General Orientation, Simple Trip, Community Skills and Safety, Complex Trip) as well as an overall grand total score are automatically calculated by a scoring program. In addition, provision is made for observation and recording of behaviors which might interfere with community mobility (e.g. repeated

stereotypical behavior; inappropriate touching of the examiner, need for frequent redirection to task).

The following specific behaviors were assessed based on task analysis of the bus trip and the functional skills list prepared by the steering committee.

#### General Orientation

Response to greeting

The ability to provide personally identifying information

Following directions

Time monitoring

The ability to reverse a route and incidental learning (finding the way back to the waiting room at the end of the test)

#### Simple Trip

The ability to identify a bus stop

Selection of the correct bus

Identification of the driver

Showing a bus pass appropriately

Identification of the exit stop

Signaling exit

Learning a route

#### Community Skills and Safety

The ability to select a seat on the bus, appropriate on-bus behavior

The ability to deal with an unsolicited approach from a stranger

Selecting appropriate clothes for the weather

Appropriate waiting at the bus stop

The ability to cross the street in a variety of situations

Strategies to deal with becoming lost

The ability to seek assistance and knowledge of where to get it

#### Complex Trip

The ability to distinguish between buses and bus stops appropriate for different journeys

The ability to sequence elements of a complex trip

In addition, test items were configured in such a way as to require some of the more abstract abilities required for community mobility including:

Memory

Judgment

Self-initiation

Resistance to distraction

Impulse control

Communicative ability

## FACTS RESPONSE SHEET

NAME: \_\_\_\_\_

DATE: \_\_\_\_\_

EXAMINER: \_\_\_\_\_

	<u>Approp. Verbal</u>	<u>Approp. Non Verb.</u>	<u>Inapprop. Verbal</u>	<u>Inapprop. Non Verb.</u>	<u>No Response</u>
1. Responds to Greeting	_____	_____	_____	_____	_____
2. Provides I.D.		<u>Appropriate</u>	<u>Wrong or Unintell.</u>	<u>N.R.</u>	<u>From Informant</u>
Name:		_____	_____	_____	_____
Address:		_____	_____	_____	_____
Phone Number:		_____	_____	_____	_____
Contact Name:		_____	_____	_____	_____
Contact Number:		_____	_____	_____	_____
3a. Follows Simple Directions		<u>Independent</u>	<u>Repetition</u>	<u>With Cue Physical Prompt</u>	
Come with me:		_____	_____	_____	
Follows arrows:		_____	_____	_____	
Please sit there:		_____	_____	_____	
4. Monitors Time		<u>Independent</u>	<u>With Cue</u>	<u>Inappropriate</u>	
Checks time:		_____	_____	_____	
Judges lateness:		_____	_____	_____	

5. Selects Bus Stop Sign *Let's be sure you know where to get on the bus....*

	<u>Stop Sign</u>	<u>Watch Children</u>	<u>Real Estate</u>	<u>Bus Stop</u>	<u>Wrong Way</u>
Initial	_____	_____	_____	_____	_____
Retrain	_____	_____	_____	_____	_____

*Today I will try to teach you what you would have to do if you wanted to take a bus to get to McDonald's....*

6. I.D. First Bus (91A)      77G      1A      91A      67A      71B

Initial	_____	_____	_____	_____	_____
Retrain	_____	_____	_____	_____	_____

7a.I.D. Driver

	<u>Male Passenger</u>	<u>Driver</u>	<u>Instructor</u>	<u>Female Passenger</u>	<u>Female Passenger</u>
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Initial	Y N	Y N	Y N	Y N	Y N
Retrain	Y N	Y N	Y N	Y N	Y N

7b. Show Pass

Initial	Y N	Y N	Y N	Y N	Y N
Retrain	Y N	Y N	Y N	Y N	Y N

8a. Select First DeBoard

	<u>King's</u>	<u>Car Wash</u>	<u>Power Plant</u>	<u>Sheetz</u>	<u>Church</u>
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Initial	_____	_____	_____	_____	_____
Retrain	_____	_____	_____	_____	_____

b. Ring Bell

Initial	Y N	Y N	Y N	Y N	Y N
Retrain	Y N	Y N	Y N	Y N	Y N

	<u>Church</u>	<u>Gas Station</u>	<u>Playground</u>	<u>Grocery</u>	<u>McDonald's</u>
9. Route					
Initial	___	___	___	___	___
Retrain	___	___	___	___	___

*You have been doing a good job... Now I would like to see if you can do all the things you need to remember to take that bus trip to McDonalds that we have been practicing. I would like you to....*

AUDIO TAPE: Repeat Entire Sequence

		<u>77G</u>	<u>1A</u>	<u>91A</u>	<u>67A</u>	<u>71B</u>
10.	Repeat 1st Bus I.D.	___	___	___	___	___
		<u>Male Passenger</u>	<u>Driver</u>	<u>Instructor</u>	<u>Female Passenger</u>	<u>Female Passenger</u>
11.	Repeat Driver I.D.	___	___	___	___	___
	Cue	___	___	___	___	___
	Present Pass	Y N	Y N	Y N	Y N	Y N
	Cue	___	___	___	___	___
		<u>King's</u>	<u>Car Wash</u>	<u>Power Plant</u>	<u>Sheetz</u>	<u>Church</u>
12.	Repeats 1st deboard	___	___	___	___	___
	Cue	___	___	___	___	___

	Repeat Ring Bell	Y N	Y N	Y N	Y N	Y N
13.	Repeats Route	<u>Church</u>	<u>Gas Station</u>	<u>Playground</u>	<u>Grocery</u>	<u>McDonald's</u>
		_____	_____	_____	_____	_____

REMOVE TAPE

14.	Seat Selection	<u>Correct</u>	<u>Cued</u>	<u>Incorrect</u>	<u>N.R.</u>
	Empty Bench	_____	_____	_____	_____
	Bench with Passenger	_____	_____	_____	_____
	Passenger with Coats	_____	_____	_____	_____

What to do: \_\_\_\_\_

Empty Window	_____	_____	_____	_____
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What to do: \_\_\_\_\_

15. Sitting Correctly *Which picture shows the right way to sit?*

	<u>Correct</u>	<u>Cued</u>	<u>Incorrect</u>	<u>N.R.</u>
a.	Awake/Asleep	_____	_____	_____
b.	Stand/Sit	_____	_____	_____
c.	Smoking/Not	_____	_____	_____
d.	Feet Up/Down	_____	_____	_____

16.	Approached by Stranger	<u>Correct</u>	<u>Cued</u>	<u>Incorrect</u>	<u>N.R.</u>
		_____	_____	_____	_____

17. Dressed Correctly: *Which clothes should they wear on a day like today?*

Best, Worst, Adequate	<u>Winter</u>	<u>Summer</u>	<u>Rain</u>	<u>Spring/Fall</u>
Woman	B.W.A.	B.W.A.	B.W.A.	B.W.A.
Cue	_____	_____	_____	_____
Man	B.W.A.	B.W.A.	B.W.A.	B.W.A.
Cue	_____	_____	_____	_____

18. Wait at Bus Stop

<u>Too Far</u>	<u>Wrong Sign</u>	<u>Correct</u>	<u>N.R.</u>
_____	_____	_____	_____
Repeat/Cue	_____	_____	_____

19. Crossing: *Which picture shows the safe time to cross?*

	<u>Correct</u>	<u>Cued</u>	<u>Incorrect</u>	<u>N.R.</u>
a. Uncontrolled No traffic/light	_____	_____	_____	_____
b. Pedes. green/red	_____	_____	_____	_____
c. No pedes. green/red	_____	_____	_____	_____
d. No pedes. green/yellow	_____	_____	_____	_____
e. Stop Sign traffic/no traf.	_____	_____	_____	_____
f. Walk/Don't	_____	_____	_____	_____

20. Lost on Bus

a. *Let's say you are taking the bus to go to the McDonald's. You are ready to get off the bus at the church. But when you ring the bell and go to the front of the bus you see this..... What should you do?*

Verbal Response:

Non Verbal:

b. *When you look out the window by the driver you see that you don't know where you are. If you get off here you will be lost. What should you do?*

*How could you ask for help?*

21. Lost off bus: *Which is the best place to go for help?*

	<u>Correct</u>	<u>Cued</u>	<u>Incorrect</u>	<u>N.R.</u>
a. Grocery/Water Plant	_____	_____	_____	_____
b. Drug Store/House	_____	_____	_____	_____
c. Alley/Hotel	_____	_____	_____	_____
d. Taco Bell/Closed Bldg.	_____	_____	_____	_____
e. Alley/People at Stop	_____	_____	_____	_____
f. Police Officer/Driver	_____	_____	_____	_____

22. Asking for help: *If you were not sure where to go, how would you let the officer know you needed help?*

Cue: *What if the officer said: "Is there a problem?"*

Cue: *"How can I help you?"*

Cue: *"Can you show me something with your name and address on it?"*

NB: If applicant failed 2 or more key parts of 1st sequenced trip (pick bus, deboard, routes) or failed on sequence one part that was never learned after retraining, skip to Item 31 CHECKING TIME

Intro - Transfer trip

Sometimes you might need to take two buses to get where you want to go. Let's say that after you took your first bus, the 91A to get to McDonalds, you want to go to the movies. So now you will have to take a different bus. I'll show you how to take this second bus trip.

23.	I.D. Transfer Bus Stop <u>Restaurant</u>	<u>McDonalds</u>	<u>w/ Shrubs</u>	<u>Crowd</u>	<u>Bank</u>
	Initial	_____	_____	_____	_____
	Retrain	_____	_____	_____	_____
		<u>93A</u>	<u>5C</u>	<u>1C</u>	<u>91A</u>
<u>3C</u> 24.	I.D. Transfer Bus (3-C) Initial	_____	_____	_____	_____
	If 91A is chosen, provide explanation				
	Retrain	_____	_____	_____	_____
25.	I.D. Transfer Deboard <u>Restaurant</u>	<u>George Aiken's</u>	<u>Church</u>	<u>Movies</u>	<u>Bank</u>
	Initial	_____	_____	_____	_____
	Retrain	_____	_____	_____	_____

If applicant failed after retraining, to I.D. transfer bus stop, transfer bus, or transfer deboard, do not attempt sequence. Proceed to ITEM 31 CHECKING TIME. Otherwise, continue with sequence.

Now I want to see if you can do all the things you would need to do if you took a bus to the church, walked to McDonalds and then took a second bus to go to the movies.

INSERT AUDIO TAPE:

26.	Final I.D. 1st Bus	<u>77G</u>	<u>1A</u>	<u>91A</u>	<u>67A</u>	<u>71B</u>
		_____	_____	_____	_____	_____

*Now you are on the first bus. Watch for where you need to get off.*

27.	Final 1st DeBoard	<u>King's</u>	<u>Car Wash</u>	<u>Power Plant</u>	<u>Sheetz</u>	<u>Church</u>
		_____	_____	_____	_____	_____
	Ring Bell	Y N	Y N	Y N	Y N	Y N

*Now you are off the bus, and you need to walk to McDonalds.*

28.	Final Route	<u>Church</u>	<u>Gas Station</u>	<u>Playground</u>	<u>Grocery</u>	<u>McDonalds</u>
		_____	_____	_____	_____	_____
29.	Final I.D. 2nd Bus Stop	<u>McDonalds</u>	<u>Sidewalk w/ Shrubs</u>	<u>Downtown Crowd</u>	<u>Bank</u>	<u>Restaurant</u>
		_____	_____	_____	_____	_____

*Now show me the bus that will take you to the movies.*

30.	Final I.D. Transfer Bus	<u>93A</u>	<u>5C</u>	<u>1C</u>	<u>91A</u>	<u>3C</u>
		_____	_____	_____	_____	_____

*Now you are on the second bus. Ring the bell when you see where you want to get off.*

31.	Final Transfer Deboard	<u>George Aiken's</u>	<u>Church</u>	<u>Movies</u>	<u>Bank</u>	<u>Restaurant</u>
		_____	_____	_____	_____	_____

ITEM 32. Checking Time

Self initiate time check	<u>Approp.</u>	<u>Early</u>	<u>Late</u>	<u>Persev.</u>	<u>N.R.</u>
	_____	_____	_____	_____	_____
Cued time check	<u>Correct</u>	<u>Incorrect</u>	<u>N.R.</u>		
Did we finish on time? are we late?	_____	_____	_____		

ITEM 33.

Find a Way Back to the elevator	<u>Verbal</u> <u>Independent</u>	<u>Physical</u> <u>Cue</u>	<u>Prompt</u>
	_____	_____	_____

**BEHAVIORAL CHECKLIST**

Easily Agitated:	Y	N	Frequent Redirection:	Y	N
Unresponsive:	Y	N	Distractible:	Y	N
Nonverbal:	Y	N	Interrupts repeatedly:	Y	N
Inappropriate Behavior:	Y	N	Inappropriate Vocalization:	Y	N
Stereotypical Behaviors:	Y	N	Stereotypical Vocalization:	Y	N
Unintelligible Speech:	Y	N	Other: specify	_____	
				_____	
				_____	

COMMENTS:

## FACTS SCORE SHEET

NAME:

I.D.:

DATE:

LOCATION:

EXAMINER:

CHECKED?

### BEHAVIORAL CHECKLIST

Easily Agitated:	Y	N	Frequent Redirection:	Y	N
Unresponsive:	Y	N	Distractible:	Y	N
Nonverbal:	Y	N	Interrupts repeatedly:	Y	N
Inappropriate Touching:	Y	N	Inappropriate Vocalization:	Y	N
Stereotypical Behaviors:	Y	N	Stereotypical Vocalization:	Y	N
			Unintelligible Speech:	Y	N

A. Orientation	Appropriate	Inappropriate/None		Total
1. Response to Greeting	2	0		<input type="text"/>
2. Provides I.D.	Full/Independ..	Partial/Cued	Wrong or N/R	
Name	2	1	0	
Address	2	1	0	
Phone Number	2	1	0	
Contact Name	2	1	0	
Contact Number	2	1	0	
Total				<input type="text"/>
3. Follows Direction	Independent	Cued/Repeated	Physical Prompt	
Come with	2	1	0	
arrows	2	1	0	
sit	2	1	0	
Total				<input type="text"/>
4/32. Monitors time (ignore 1 early response)	Independ./Accur.	Cued Correct or Indep./Delay.	Perseverates or Incorrect	
	4	2	0	<input type="text"/>
33. Back to Waiting Room	Independ./Accur.	Cued	> 1 Prompt	
	4	2	0	<input type="text"/>
COUNT A	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

B. Simple Trip	Initial	Retrain	Fail	Total
5. Bus Stop	4	2	0	
6. Bus	4	2	0	
7a. I.D. Drive	4	2	0	
7b. Show Pass	4	2	0	
8a. I.D. Stop	4	2	0	
8b. Ring Bell	4	2	0	
9. Learns Route	4	2	0	
Chain	Pass		Fail	
10. Bus	2		0	
11a. I.D. Drive	2		0	
11b. Show Pass	2		0	
12a. I.D. Stop	2		0	
12b. Ring Bell	2		0	
13. Learns Route	2		0	
	0	0	0	
COUNT B				

C. Travel Skills	Spontaneous Corr.		Incorrect/None	
14. Seat Selection				
a	1		0	
b	1		0	
c	1		0	
d	1		0	Total <input type="text"/>
15. Sitting				
a	1		0	
b	1		0	
c	1		0	
d	1		0	Total <input type="text"/>
16. Stranger	4		0	Total <input type="text"/>
17. Clothes	Best		Inadequate	
a	2		0	
b	2		0	Total <input type="text"/>
18. Wait at Stop	Spontaneous		Incorrect/Name	
	2		0	Total <input type="text"/>
19. Crossing				
a	2		0	
b	2		0	
c	2		0	
d	2		0	
e	2		0	
f	2		0	Total <input type="text"/>
20. Lost on bus	Adequate/Spont	Cued	Inadequate	Total
a	2		0	
b	2		0	<input type="text"/>
21. Where to get help				
a	2		0	
b	2		0	
c	2		0	
d	2		0	
e	2		0	
f	2		0	Total <input type="text"/>
22. Ask for help	Spontaneous	1 Cue >1 Cue	Inadequate	Total <input type="text"/>
	4	2      1	0	
COUNT C	<input type="text"/>	<input type="text"/>	<input type="text"/>	Total C <input type="text"/>

TOTAL COUNT	A+B+C			A+B+C Total
	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
<b>D. Complex Trip</b>	Initial	Retrain		
23. Transfer Stop	2	1		
24. Transfer Bus	2	1		
25. Transfer Deboard	2	1		
Transfer Chain			Chain	
26. 1st bus			4	
27. 1st deboard			4	
28. Route			4	
29. Transfer Stop			4	
30. Transfer Bus			4	
31. Transfer Deboard			4	
COUNT D	<input type="text"/>	<input type="text"/>	<input type="text"/>	Total D <input type="text"/>
				Grand Total <input type="text"/>