

Supplemental Material S1. Participant survey on usability of device.

Question 1: How would you describe the amount of training you received from the research staff for use of the Self-Trainer before you had to use it independently?

	Too much training	The right amount of training for independent use	Barely adequate for independent use	Not enough for independent use	No opinion/don't remember
Number of responses	0	7	0	0	0

Question 2: How would you describe the written directions given to you to help you use the Self-Trainer independently?

	Very useful in helping me use the device independently	Moderately useful in helping me use the device independently	Minimally useful in helping me use the device independently	Not useful at all because I already knew how to use the device	Not useful at all because the material was too hard to understand	No opinion/Don't know
Number of responses	7	0	0	0	0	0

Question 3: How would you describe the video directions given to you to help you use the Self-Trainer independently?

	Very useful in helping me use the device independently	Moderately useful in helping me use the device independently	Minimally useful in helping me use the device independently	Not useful at all because I already knew how to use the device	Not useful at all because the material was too hard to understand	No opinion/Don't know
Number of responses	4	0	0	0	0	2

Note: one participant did not respond

Question 4: How would you describe the Self-Trainer's as you used it independently?

	Very easy to use independently after training	Easy to use independently	Somewhat easy to use independently after training	Somewhat difficult to use independently after training	Difficult to use independently after training	Very difficult to use independently after training	No opinion/Don't know
Number of responses	5	2	0	0	0	0	0

Note: one participant did not respond and one participant provided 2 responses

Question 5: How often did you have to refer back to the education material while you were using the Self-Trainer independently?

	Every time I used the device	The majority of the time (about 80% of the time)	Frequently (about 60% of the time)	Several times (about 40% of the time)	Rarely (less than 20% of the time)	Not once	No opinion/ Don't know
Number of responses	0	0	0	0	3	3	0

Note: one participant did not respond

Question 6: How much contact with the research study staff did you feel like you needed in order to use the Self-Trainer independently on a daily basis?

	Daily contact to ask questions	Contact several times a week to ask questions	Contact once a week to ask questions	Contact several times a month to ask questions	Contacted 1-3 times over 3 months to ask questions	Never contacted the staff to ask questions
Number of responses	0	0	1	1	4	1

Note: one participant provided 2 responses; one participant did not respond

Question 7: How much would you describe the size of the Self-Trainer for long term daily use?

	Much too large	Too large	Slightly too large	Fit comfortably, neither too large or too small	Slightly too small	Too small	Much too small	No opinion / Don't know
Number of responses	1	0	3	3	0	0	0	0

Question 8: How would you describe the number of times the device goes off when the device is set in automatic mode and vibrates every few minutes throughout the day?

	Vibrates much too often	Vibrates somewhat too often	Vibrates just often enough	Vibrates somewhat too infrequently	Vibrates much too infrequently	No opinion/ Don't know
Number of responses	0	0	6	1	0	0

Question 9: During active swallowing practice, you were asked to turn on the self-trainer vibration and swallow 30 times twice a day. What is your opinion on the number of times you were requested to swallow each day?

	Very difficult	Somewhat difficult	Neither easy nor difficult	Somewhat easy	Very easy	No opinion/ Don't know
Number of responses	0	1	2	2	3	0

Note: one participant provided 2 responses

Question 10: How would you describe the appearance of the Self-Trainer?

	I like the appearance very much	The appearance is OK	I find the appearance slightly unattractive	I don't like the appearance at all	No opinion/ Don't know
Number of responses	1	3	1	1	0

Note: one participant did not respond

Question 11: How would you describe your feelings about wearing and using the Self-Trainer in public places?

	Severely self-conscious, would not wear in public anywhere	Moderately self-conscious, would only wear with friends	Minimally self-conscious, would wear with acquaintances	Not self-conscious at all, would wear in public anywhere, with anyone	No opinion/ Don't know
Number of responses	2	0	0	5	0

Question 12: How would you describe your comfort while wearing the device?

	Very comfortable	Moderately comfortable	Minimally comfortable	Neither comfortable or uncomfortable	Minimally uncomfortable	Moderately uncomfortable	Severely uncomfortable	No opinion/ Don't know
Number of responses	1	1	2	0	3	1	0	0

Note: one participant provided 2 responses

Question 13: How long can you wear the Self-Trainer comfortably?

	All day, about 12 hours	Most of the day, about 8- 11 hours	About half a day, 5-7 hours	Less than half a day, 3- 4 hours	1-2 hours a day	An hour or less a day	Not any amount of time	No opinion/ Don't know
Number of response s	1	3	3	1	0	0	0	0

Note: one participant provided 2 responses

Question 14: How would you describe your ability to socialize and attend social events in the community while wearing the Self-Trainer?

	Unlimited, attend all functions as usual	Minimally limited, attend most functions that you would normally attend	Moderately limited, attend some functions that you would normally attend	Severely limited, attend only a few of the functions you would normally attend	I would not socialize or attend social functions while wearing the Self-Trainer	No opinion/ Don't know
Number of Responses	4	1	0	0	2	0

Question 15: How would you describe your willingness to use the self-trainer when going out to a restaurant?

	Unlimited, would use self-trainer in all restaurants	Minimally limited, would use the self- trainer in most restaurants	Moderately limited, would use the self- trainer in some restaurants	Severely limited, would use the self- trainer in a few restaurants	I would not use the self- trainer in a restaurant	No opinion/ Don't know
Number of Responses	1	1	0	0	3	1

Note: One participant did not respond and instead wrote in "Don't go to restaurants at all." The participant that answered "No opinion/Don't know" also wrote in "If I could eat it would be no problem."

Question 16: How much did you rely on your swallowing "coach" for reminders and motivation to complete this three month swallowing retraining program?

	Complete reliance, 100% of the time	High level of reliance, about 75% of the time.	Moderate level of reliance, about 50% of the time.	Low level of reliance, about 25% of the time.	No reliance at all	No opinion/Don't know
Numbers of Response	1	0	1	0	4	1

Note: The participant that responded with "No reliance at all" also wrote in "I didn't need any reminders at all."

Question 17: Considering all aspects of the self-trainer, including the design, appearance, and use, what changes would you make to the self-trainer?

Themes: Negative, Positive, Suggestions, and Other

Negative:

	Too big	Difficult to use	Uncomfortable
Number of responses	4	1	1

Positive:

	Improved swallowing
Number of responses	2

Suggestions for the Device:

	Suggest more durable	Suggest adding pulsing feature to device	Suggest adding counting/measurement to device	Suggest larger vibrations	Suggest wireless
Number of responses	2	1	1	2	1

Other:

	Wish to eat more food	Forgot to charge
Number of responses	1	1