1. Definitions

2. Terminology

3. Pediatric Preoperative Message Banking for short term Augmentative Communication Need
   a. CHB Pre-op vocabulary selection ‘guide’
   b. Technology considerations
   c. Strategies for ‘last minute’ additions

4. Message Banking for Long Term use of Augmentative Communication
   a. Recording Technology considerations
   b. Storage options
   c. Importing into an SGD (current examples for Dynavox InterAACt and Tobii Communicator)
DEFINITIONS:

**Voice Banking** is a process of recording a large inventory of your speech that is then used to create a synthetic voice that approximates your natural voice.

Done successfully, this would allow one to spell and create unique messages and then speak them through a synthesizer that approximates one’s natural speech. The science behind this process continues to be in development with beta-versions of available software. The ModelTalker is one such project from the University of Delaware Speech Research Lab. The website is: 
www.asel.udel.edu/speech/ModelTalker.html

**Message Banking with your own voice** digitally record and store words, phrases, sentences, personally meaningful sounds and/or stories using your natural voice, inflection and intonation.

These messages are catalogued as .wav files and may then be linked to messages in a variety of augmentative communication technologies or sound storage files. This will allow you to ‘retrieve’ a message and speak it in your own voice but does not allow you to create novel messages by spelling. If you have recorded individual words, you may combine those words to create unique messages, although the output will sound more staccato than your natural speaking.

**Message Banking by proxy** is the election of a proxy voice to do all recordings because issues of fatigue, pain or intelligibility may make it difficult for an individual to bank all messages. In this case, the patient may still bank ‘legacy messages’ but the majority will be banked by proxy.
TERMINOLOGY:

Legacy Messages are those messages, often delivered with unique intonation and prosody that are unique or particular to you. It may be a ‘trademark’ message you say or it may be a trademark delivery of a message that many people say. A legacy message does not need to be meaningful to the general population instead it may have unique and personal meaning to only you and a loved one. Further, a legacy message does not need to be real words to be meaningful. It may be the way you clear your throat in a sarcastic manner to communicate “I told you so” or it might be the invented pet name you have for a loved one delivered with your unique voice, intonation and prosody. Similarly, legacy message may be that stereotypical thing you say after your favorite sports team scores or it may be a unique greeting you deliver to friends. Those close to you may be helpful with identifying these Legacy Messages because sometimes they are so naturally part of socially relating with others, you may not even be aware you are ‘known’ for them.

Core Vocabulary refers to messages and words that are frequently used by many individuals across many contexts. This vocabulary typically consists of "functor" words such as "is, was, he, she" and common nouns and primary verbs (e.g. person, like, want). (Beukelman & Mirenda, 1992). A variety of ‘core vocabulary’ lists are available in this guide for your consideration.

Fringe Vocabulary is vocabulary specific or unique to an AAC user or to one activity or topic (Beukelman & Mirenda, 1998). Lists of possible activities, topics and scenarios that may serve as a catalyst for identifying fringe vocabulary can be found in this guide.
Pre-Operative Vocabulary Questionnaire Augmentative Communication Program Children’s Hospital Boston

NAME: ___________________________

Today’s date: ______________________

Date of surgery: ____________________

Have you been in the hospital and unable to speak before? YES NO

To be completed by patient or with family assisting patient.

PURPOSE: Because sometimes after surgery, it is hard to talk for a short time, Children’s Hospital Boston wants to be certain that we figure out a way to help you communicate the things that are really important. We do this by creating different communication tools (sometimes pictures, sometimes electronics) that have the messages that YOU say will be most important to you after surgery. To help us start this process, please complete this brief vocabulary questionnaire. When it is completed, someone will contact you to offer more suggestions and to work with you on making a communication tool.

Please list up to 30 messages (feel free to continue on back!)

When answering these questions, think about medical needs but also think about your personal interests.

1. When you first wake up, what do you think will be important to say: (examples from other patients: “I want mom”, “I need suctioning”, “Give me my teddy bear”)

2. If you wear glasses or hearing aids, you may want to ask people to get them for you. Please list these messages here:

3. Messages related to entertainment (examples from other patients: I want to watch TV, I want my Cinderella video, Please give me my iTouch)

4. Messages related to control (examples from other patients: “Leave me alone, Come back later)

5. Messages related to personal interests (examples from other patients “Who is feeding my dog?”)

6. Expressions of humor (examples from other patients: “You goof ball”, “No way Jose”)
7. Things that make you feel better (examples from other patients: “Hold my hand”, “Please stay with me”, “Tell me a story”, “Visualize with me”)

8. Emotions. People will ask you how you are feeling. What are some of the answers you may want to tell them?

9. Personal comfort. (Examples from other patients “Please adjust the bed, change the lights, I have to go to the bathroom”)

10. Social statements. (Examples from other patients: “Hi, I love you, Thank you, See you later”)

11. Anything else that you think will be important while you are in the hospital
CREATING AND STORING .WAV FILES (IN ITUNES OR ON DESKTOP)

Personal Message Banking with itunes:

1. Record messages using any system that will allow you to create a .wav file.
2. I have used Speaking Dynamically Pro message recording feature to do this.
   a. Open SDP
   b. Create a target
   c. Double click and choose “play record message’
   d. Using either a high quality internal mic or external mic, record the message
      i. Provide a slight pause before starting to speak to allow the record feature to ‘kick in’
      ii. Speak clearly but at naturally as possible
   1. Hints on natural speaking:
      a. Your message should NOT end with rising intonation unless it is a question
      b. It is fine to not sound perfect; having pauses or intonation that suggests sarcasm, tenderness, anger, etc. is perfect.
      c. Imagine yourself REALLY saying the message in context when you record it!
   e. You can name each recording in SDP if you would like, but this name will not be part of the .wav file so it is not critical (you will later listen to and name each file)
   f. You can record as many messages on one button with “play record message’ command, as you like. This allows you to not get stuck in creating many buttons.
      ** my advise is to record all like messages under one button. This will help you later as all of the similar messages will be grouped together for you to name and import into itunes.
   g. Once you have recorded your desired list of messages, Save your SDP file (example: “voice bank dinner”)
   h. Close SDP (not necessary, but can make things less confusing later)
   i. Click on the file you just created ‘Voice bank dinner’
   j. There will be two folders, one will have the funny man icon, the other will be a folder with the file name and .mm
   k. Click on the file with .mm
   l. Each of your recordings will be in this file as a .wav file (will have the blue icon next to the .wav file. There will also be another file with each .wav file. You can ignore the other file.
   m. Listen to each .wav file and then click on it and name it as close to the actual spoken message as possible.
   n. Complete naming all of the .wav files
NOW, **open itunes ON THE COMPUTER, WHICH IS SYNCED WITH THE ITOUCH/IPHONE TO WHICH YOU WILL BE SAVING.** If you do not have that computer available, you can still transfer all of these .wav files to that computer when it is available.

In your itunes library.

**In Itunes:**

1. select ‘new playlist’ from the drop down menu under ‘file’
2. NOTE: make sure you select ‘new playlist’ NOT ‘playlist folder’
3. Name your ‘new playlist’ (example: dinner talk)
4. Go to your desktop folder containing the stored and named .wav files
5. On the MAC, you can drag all of those files into your newly created playlist.
6. Because you may sometimes access all of your files from the ‘library’ feature whereby all of the files are open at once, you also want to ‘mark’ the files so similar topic files can be easily grouped together.
   a. Type in the same word/phrase under ‘genre’
   b. Type in the same word/phrase under ‘artist’
   c. Now, you can also find your phrases by ‘genre’ or ‘artist’ if you are not in a specific playlist.
Converting from .wav to .mp3 in iTunes

1. in iTunes, create a ‘playlist’
2. name playlist (ex: mp3 conversions)
3. drag and drop .wav files to the playlist to do mp3 conversions
4. select all .wav files in the newly populated playlist
5. right click with mouse
6. select ‘create mp3 version’
7. files will be automatically converted and placed in your large music library
8. DELETE the original copies (which are still .wav) from the mp3 playlist.
9. Go to music library and drag the newly converted mp3 files to the mp3 playlist.
Importing .wav or .mp3 to Tobii C series

1. Create a folder on the desktop and name it ‘Audio files’
2. Insert memory stick and import (copy) .mp3 or .wav files to desktop folder ‘audio files’
3. Launch Communicator
4. Select (or create) page to which you wish to import sound files
5. Select destination target from communication display
6. Name the target or insert symbol to ‘mark it’
7. Select ‘audio tool’ from the menu on left (looks like a speaker)
8. From popup menu, select ‘sound file’
9. Select ‘browse’
10. Select desired audio file
11. Select ‘open’ (bottom right of popup)
12. Select ‘save’
13. To test, click ‘run view’, which is the sideways arrow in the menu bar.
Importing .wav and .mp3 files in InteACTT software/Dynavox Products

1. From the destination page, choose ‘modification button in menu
2. The modification button turns red
3. Touch the destination target on your communication page
4. Pop up menu will appear
5. Search for ‘behavior’ PLAY
6. Select ‘Play music’
7. Will auto pop up to drive options
8. Make sure you select ‘show all directories’ on bottom left corner of screen/
9. Choose the file you want from the left
10. Select ‘ok’
11. Now test the destination target.
Telephone Language modified from:
http://www.englishclub.com/speaking/telephone_language.htm

Here are some typical phrases used in a telephone conversation.

| Answering the phone | Hello? (informal)  
Thank you for calling |
|---------------------|---------------------|
| Introducing yourself | • Hey, It's ____ calling. (informal)  
• Hello, this is ____ _______ calling (formal).  
• This is she.*  
• Speaking.*  
*The person answering says this if the caller does not recognize their voice. |
| Asking to speak with someone | • Can I talk to _______? (informal)  
• Please May I speak with ________?  
• Would the doctor be in/available? |
| Connecting someone | • Just a sec. I'll get him. (informal)  
• Hang on one second. (informal)  
• Please hold and I'll get _____.  
• One moment please.  
• |
| Making special requests | • Could you please repeat that?  
• Would you mind spelling that for me?  
• Could you speak up a little please?  
• Can you speak a little slower please.  
• Can you call me back? I think we have a bad connection.  
• Can you please hold for a minute? I have another call. |
| Taking a message for someone | • They are not in. Who's this? (informal)  
• I'm sorry, she's not here at the moment. Can I ask who's calling?  
• Would you like to leave a message?  
• He's busy right now. Can you call again later?  
• I'll let him know you called.  
• I'll make sure she gets the message. |
| Leaving a message with someone | • Yes, can you tell him his wife called, please.  
• No, that's okay, I'll call back later.  
• Yes, it's James from CompInc. here. When do you expect her back in the off  
• Thanks, could you ask him to call Brian when he gets in?  
• Do you have a pen handy. I don't think he has my number.  
• Thanks. My number is 222-3456, extension 12. |
| Confirming information | • Okay, I've got it all down.  
• Let me repeat that just to make sure. |
<table>
<thead>
<tr>
<th>Leaving a message on an answering machine</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Hey Mikako. It's Yuka. Call me! (informal)</td>
</tr>
<tr>
<td>• Hello, this is Ricardo calling for Luke. Could you please return my call as soon as possible. Thank you.</td>
</tr>
<tr>
<td>• Hello Maxwell. This is Marina from the doctor’s office calling. I just wanted to let you know that you’re due for a check-up this month. Please give us a ring/buzz whenever it’s convenient.</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Finishing a conversation</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Well, I guess I better get going. Talk to you soon.</td>
</tr>
<tr>
<td>• Thanks for calling. Bye for now.</td>
</tr>
<tr>
<td>• I have to let you go now.</td>
</tr>
<tr>
<td>• I have another call coming through. I better run.</td>
</tr>
<tr>
<td>• I’m afraid that’s my other line.</td>
</tr>
<tr>
<td>• I'll talk to you again soon. Bye.</td>
</tr>
</tbody>
</table>