

Rock & Roll Therapy: Using Music to Teach Core Vocabulary and Language Structures

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How has music typically been used as part of AAC intervention?

- Musical toys or instruments might be controlled through switches and used to **teach switch access**.
- Music is played or sung for **entertainment and recreational purposes**.
- Music is used to **encourage development of pragmatic functions**, such as turn taking and interactive participation.
- Songs might be used to help **teach meta-linguistic, language, or literacy skills**.

Music for Recreation, Entertainment, and Participation

- Digital devices
 - Record music into devices
- Synthesized devices with DecTalk
 - Play music already in devices
 - Load new music into devices through available resources
 - Program new music into devices based on parameters for programming musical notes and duration
- Play keyboards
 - Traditional or via computer software



The All New
You're Singing With DecTalk

Singing Software For Everyone
Over 1000 Songs From 5 Categories
Gospel, Country, Rock, Christmas and Childrens

Snoopi Botten
Multi Licensed CD
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DECTALK 101
PROGRAMMING YOUR AAC TO SING
A THOROUGH LEARNING CD

SNOOPI BOTTEN



Music for Meta-Linguistic & Language Development

- Meta-Linguistic Skills for AAC device use
 - Songs about "parts of speech"
 - Songs about "word families" and vocabulary organization in AAC device
 - Song parodies

– www.songsforteaching.com

– www.preschoolrainbow.org

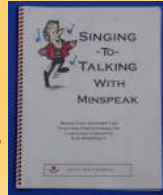


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A Specific Resource – “Singing-To-Talking with Minspeak”

- A Category and Word Family Songbook
 - Useful for general knowledge about language parts for any AAC user
 - Useful for learning “Word Families” and icon codes for a specific AAC program
 - Has icons included for Unity128
 - Being revised for icons for Unity84



Part of Speech Song – For Interjections

- Sung to: If You’re Happy and You Know It
- Verse 1:
 - If you’re walking down the street, say “hello.”
 - If you’re shocked and surprised, just say “oh.”
 - If a bug’s on you, scream “eek,”
 - Say “excuse me” if you freak.
 - Interjections pop in everywhere we go.
- Verse 2:
 - If you have to go away, say “good-bye.”
 - When you come back again, just say “hi.”
 - Yell out “boo” to surprise me,
 - Then “chill out” or just “sorry.”
 - Interjections pop in everywhere we go.

Word Family Song – For Verbs

- Use a Military Chant
 - Herb the Verb has got to go
 - He goes and goes and goes and goes
 - Going day and going night
 - He goes and goes with all his might
 - Sound off – Herb Verb
 - Sound off – Herb Verb
 - Sound off – Herb Verb, Herb Verb, Herb Verb
- Repeat with other verb words like “drink,” “eat,” or “work”



Music for Meta-Linguistic & Language Development

- Meta-Linguistic Skills for AAC device use
- Language & Literacy Development
 - Using language in AAC device, have student/client modify lyrics of a song
 - Create made-up songs and musical activities to teach about language or literacy



S.P.E.L.L. – Song to Promote Early Language and Learning

- From Australia
 - Novita Tech
- A book and CD
- Musical activities



Musselwhite Resources

- Signs and Symbols for Children
- Singing to Read
 - Songs for favorite books
- Song Box Songs
 - Songs for vowel and development



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Using Lyrics to Teach Core Vocabulary Codes and Language Structures

A Review of a Mini-Research Project

Problem and Purpose

- Problem – challenged by 3 teenage girls
 - Each described as “passive” and “unmotivated”
 - Each under-achieving in language expression
 - Lacking appropriate core vocabulary
 - Limited sentence production
 - Poor interaction and conversational skills
- Purpose
 - To use music as a motivational and language strategy for learning key core vocabulary
 - To de-contextualize the lyrics into personal language applications

The Student “Subjects”

- Subject #1 = 17 year old, on Pathfinder with Unity128, MLU-M = 4.6
- Subject #2 = 14 year old, on Vantage with Unity84, MLU = 2.4
- Subject #3 = 13 year old, on Pathfinder with Unity128, MLU = 3.1

Overall Intervention Goal

To learn and then use in natural conversation, age appropriate words and language patterns that are not currently being used spontaneously, as identified by LAM samples - and to do it in a fun and motivating way.

Determining Language Goals

- Identify vocabulary and syntax needs through
 - Monthly LAM samples
 - Face-to-face interaction
- Prioritize vocabulary needs
 - Core vocabulary
 - Pronouns, Pronoun Phrases, Indefinite Pronouns
 - Verbs - Prepositions – Adverbs
- Emphasize critical syntax forms
 - Pronoun phrase development
 - Helper Verbs (can, could, do, will, etc.)
 - Contractions (can't, I'll)
 - Verb phrase development
 - Verb Tenses
 - Adverbs and Prepositions in Verb Phrases

Language to Lyric Matching

- Challenges in finding appropriate lyrics
 - Un-grammatical language in lyrics
 - Excessive extended vocabulary
 - Possible offensive nature of lyrics
- Appropriate lyrics for language learning
 - Simple repetitive lines
 - Mostly core vocabulary
 - Limited lyrics (short verses and chorus)
 - Target a pragmatic function (hello/goodbye songs, question asking, etc.)

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Songs Considered & Selected

- Beatles (9 songs)
 1. Can't Buy Me Love (Lennon/McCartney)
 2. Love Me Do (Lennon/McCartney)
 3. I Saw Her Standing There (Lennon/McCartney)
 4. Eight Days a Week (Lennon/McCartney)
 5. All You Need is Love (Lennon/McCartney)
 6. All My Loving (Lennon/McCartney)
 7. She Loves You (Lennon/McCartney)
 8. I Want to Hold Your Hand (Lennon/McCartney)
 9. I Feel Fine (Lennon/McCartney)
- Temptations – The Way You Do The Things You Do
- The Supremes – Stop! In the Name of Love
- Elvis – That's Alright



Why Selected?

- Matched key criteria
 - All contained key vocabulary
 - None had more than 5 non-core words
 - All had repetitive lines
 - “Approved” by the students

Step 1: Song Analysis

- Vocabulary analysis
 - Core vocabulary (by Part of Speech)
 - Extended (by Part of Speech)
- Language structure review
 - Statement/Question forms
 - Types of phrases and structures
 - Pronoun + Helper Verb
 - Negation
 - Contractions

“Can't Buy Me Love”

Core Vocabulary:

- Pronouns: me, you, my, it
- Pronoun Phrases: can't, I'll, you feel*, I don't, I may not, you don't need, you want
- Indefinite Pronouns: anything, everybody
- Verbs: buy, love, give, makes, get/got, care, say, have, tells, be, satisfied*
- Nouns: friend, money, lot, things
- Adverbs: alright, too, much, to, so, just
- Determiners: all, that
- Adjectives: kind
- Conjunctions: if, but, and, because
- Prepositions: for, of
- Question Words: what
- Articles: a, the

Extended Vocabulary:

- Nouns: diamond, ring

Vocabulary marked with an asterisk needs to be customized into the vocabulary.

Step 2: Target Language

- Define vocabulary you want to target and track
 - List vocabulary
 - List language structures
 - List language category or categories

You can not teach all the words in any one song.
Be selective and pick 2 – 5 words!

“Can't Buy Me Love”

Can't buy me love, love. Can't buy me love.
I'll buy you a diamond ring my friend if it makes you feel all right.
I'll get you anything my friend if it makes you feel all right.
'Cause I don't care too much for money, money can't buy me love.

I'll give you all I got to give if you say you love me too.
I may not have a lot to give but what I got I'll give to you.
I don't care too much for money, money can't buy me love.

Can't buy me love, everybody tells me so. Can't buy me love, no no no, no.

Say you don't need no diamond ring and I'll be satisfied.
Tell me that you want the kind of thing that money just can't buy.
I don't care too much for money, money can't buy me love.

1. Targeted Vocabulary: can't, don't, care
2. Targeted Language: preverb phrases (I don't, you don't, I can't); other use of contractions and/or negation
3. Targeted Language Categories: preverb phrases

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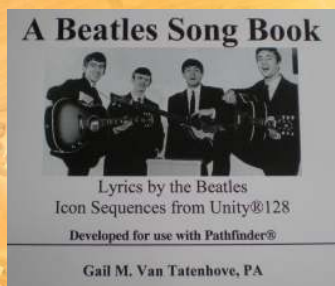
Step 3: Support Materials

- Develop visual supports
 - Song sheets/books with printed lyrics with symbol representation
 - Song charts
- Develop materials in conjunction with the student, if appropriate, using authoring software
 - PASS software (for PRC devices)
 - Writing with Symbols

“Can’t Buy Me Love” Song Sheet



Beatles Song Book



Song Charts



Step 4: Music Experience

- Recreational Experience
 - Listen - Sing - Dance
 - Perform - Compose
- Family participation encouraged outside of intervention times
 - Discuss lyrics of songs
 - Sing together
 - Attend concerts
 - Enjoy music

Step 5: Language Experience

- Language Experience
 - Listen again
 - Sing with voice or digital device
 - Transcribe lyrics into device notebook
 - Recite lyrics line-by-line using “Speak Next Sentence” macro
 - *Sing category songs or word family songs for targeted words




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
Category Song – Preverb Phrase Architecture

- Sung to: La Cucaracha
 - Chorus:
 - Preverb Phrases, Preverb Phrases
 - They are used to ask and tell.
 - Preverb Phrases, Preverb Phrases
 - They are used to ask and tell.
 - Verse 1:
 - I tell you "I want." I tell you "I think."
 - And I tell you that "I do."
 - I tell you "I need." I tell you "I will."
 - And I tell you that "I am."
 - Verse 2:
 - I ask you "do?" I ask you "can you?"
 - And I ask you "do you want?"
 - I ask you "would you?" I ask you "could you?"
 - And I ask you "do you like?"

Step 5: Language Experience

- Language Experience
 - Listen again 
 - Sing with voice or digital device
 - Transcribe lyrics into device notebook
 - Recite lyrics line-by-line using "Speak Next Sentence" macro
 - *Sing category songs or word family songs for targeted words
- Generalize targeted words into 2 or 3 personal applications to support **de-contextualization** of the lyrics

De-Contextualization & Personalization

- Select something from the song that stood out to the student
 - A line or phrase
 - "I don't care too much for (Can't Buy Me Love)
 - "... you know I love you." (Love Me Do)
- Develop something more personal that would take that line/phrase and generalize it into the student's natural conversational pattern
 - Personal book
 - Story, poem, social script
 - Example: personalized generalization 

Intervention Schedule

- Each song
 - 3 to 5 hours of direct intervention (2 or 3 weeks)
 - Listen, sing, transcribe, recite, generalize
 - Support materials left with family (homework)
 - Song sheet, song book, song chart
 - Generalization materials
- 12 songs over 12 months
- No other activities or intervention was completed **on the targeted vocabulary**
 - But other activities were completed as needed (e.g., homework support, writing assignments, etc.) on other words
- Just moved on at the end of each month to next song

Outcomes Data

- Subjective Data
 - Parent/Family reported
 - Recitation of lyrics in family recitals & re-reading of generalization materials (e.g., personal books, stories, social scripts)
 - More music and less TV/video/DVD
 - Improved interest in AAC and interacting
- Objective Data
 - Confirmed most parental reports
 - LAM samples downloaded monthly
 - To review and compare to past samples

General LAM Sample

[YY-MM-DD=06-03-04]

19:13:44 SEM "she "
 19:13:58 SEM "said "
 19:14:06 SEM "I need "
 19:14:09 SEM "to go "
 19:14:11 SEM "to "
 19:14:18 SPE "c"
 19:14:20 SPE "h"
 19:14:29 WPR "Chicago "
 19:14:47 SEM "for "
 19:14:52 SPE "s"
 19:14:54 SPE "i"
 19:14:55 WPR "sign "
 19:14:57 DWP "signing "
 19:15:00 ACT "paper "

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LAM Sample Analysis

- Manually or through software programs
 - PeRT = Performance Report Tool from AAC Institute
- Reviewed for the following features
 - Completion of “homework” activities outside of therapy
 - Use of targeted vocabulary or language structures in other contexts or word combinations
 - Use of new words from the songs that had not been specifically targeted
 - Use of words from the supplemental category song
 - Use of architectural patterns of the target category

Sample LAM Entry

- Following 1 month intervention on “Can’t Buy Me Love” with Subject #1 (based on LAM and re-constructed family journal entry)
 - Mom: You need to finish this assignment.
 - Student: I can't do it.
 - Mom: Why not?
 - Student: I just can't and don't want to.
 - Mom: If you don't finish, you'll get an F tomorrow from your teacher, because I'm not doing it for you.
 - Student: I don't care.
 - Mom: Well, I care and you're going to sit there until you do it.
 - Student: I'll try if you help me.

Use of Non-Targeted Words

- “If” (3 times) & “Just” (1 time) & “I'll” (5 times)

Can't buy me love, love. Can't buy me love.
 I'll buy you a diamond ring my friend if it makes you feel all right.
 I'll get you anything my friend if it makes you feel all right.
 'Cause I don't care too much for money, money can't buy me love.

I'll give you all I got to give if you say you love me too.
 I may not have a lot to give but what I got I'll give to you.
 I don't care too much for money, money can't buy me love.

Can't buy me love, everybody tells me so. Can't buy me love, no no no, no.

Say you don't need no diamond ring and I'll be satisfied.
 Tell me that you want the kind of thing that money just can't buy.
 I don't care too much for money, money can't buy me love

Overall Objective Data

- Vocabulary Gains
 - Increased in all categories of targeted core words
 - Pronouns = 40% increase
 - Helper verbs = 70% increase
 - Adverbs = 90% increase
 - Prepositions = 60% increase
 - Verbs = 30% increase
 - Consistent de-contextualized use of targeted words
- Language Gains
 - Increased MLU-M
 - Subject #1 = from 4.6 to 5.8
 - Subject #2 = from 2.4 to 4.4
 - Subject #3 = from 3.1 to 5.6
 - Improved verb phrase production by 20 – 30%

Conclusions

- Motivation is a critical factor in language learning and AAC use.
 - B. Baker =

Motivation		
Physical Effort	Cognitive Effort	Time
- Music was motivating.
- Core vocabulary instruction, through systematic use of musical lyrics, resulted in vocabulary and language gains.

Resources

- Van Tatenhove, G.M. (2000). Singing-to-Talking with Minspeak. AACell: Orlando, Florida, USA, www.vantatenhove.com.
- Contact Gail at: gvantatenhove@cfl.rr.com
- Website: www.vantatenhove.com