

THE RAP ON STRESS: TEACHING STRESS PATTERNS TO ENGLISH LANGUAGE LEARNERS THROUGH RAP MUSIC

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ABSTRACT

Many English language learners who have attained advanced English proficiency levels are still having difficulty in communicating, due to low intelligibility. Word and sentence stress are components that contribute greatly to intelligibility. This study was designed to explore the effectiveness of teaching English word and sentence stress patterns through the recitation of rap music and related activities. Six secondary English language learners from various primary language backgrounds voluntarily participated in a four-week intensive summer pronunciation course. Appropriate allocation of word and sentence stress was measured in speech samples obtained before and after completion of the course. The results of this study indicate improvement in stress placement by the end of the four weeks. The students also reported substantial gains in their confidence levels when communicating with others. The study includes specific methodology that may be useful and easily incorporated into programs with pre-set curricula and assessments.

INTRODUCTION

Imagine you are an advanced adolescent English learner (EL). This is your senior year of high school, and you have accomplished the daunting challenges of passing all required standardized tests and earning sufficient credits to graduate from high school. Your advanced grasp of the English language has gained your acceptance at several reputable universities. Your knowledge of English grammar far exceeds that of the average graduating high school senior. You can differentiate between a gerund and an infinitive. Your use of past perfect tense is impeccable, and you can rattle off comparatives and superlatives in your sleep. You have mastered the complicated syntax, grammar, and vocabulary of English. Indeed, there seems no barrier to your social and academic success, except for one problem. Your poor pronunciation impedes your ability to communicate orally.

In the absence of reasonably intelligible speech, effective communication simply cannot take place. Morley (1999) contends that severe pronunciation difficulty puts some English language learners at considerable educational, occupational, professional, and social risk. Furthermore, ELs with poor pronunciation skills tend to avoid speaking with native speakers, which deprives them of the necessary practice they need to improve their speaking skills.

It is my observation that many ESL textbooks lack an emphasis on teaching pronunciation. As most students progress through the existing curricula, insufficient attention is directed towards pronunciation aspects of the English language. Effective communication in English is dependent upon more than an expansive vocabulary, mastery of decoding, and grammatical accuracy. Although these are imperative components of communication, they do not complete a program of effective communication in English. Explicit integrated instruction of pronunciation can greatly enhance the intelligibility of these students, as well as their confidence as they progress in their language development. It is a common misconception that pronunciation instruction needs to be "an extra deviation from the lesson." Murphy (2004) recommends that word stress be taught in conjunction with new academic vocabulary. He emphasizes the necessity of intelligible use of specialized vocabulary for successful English proficiency.

I have developed a pronunciation method geared toward, but not limited to secondary ELs that addresses two important aspects in attaining effective communication skills: word and sentence stress. In order to improve pronunciation, ELs must be open to experimenting with vocalizations and sounding differently than they have before in their lifetime.

I have chosen the channel of rap music to help ELs experiment and practice such novel vocalization of word and sentence stress. This approach is similar to Carolyn Graham's (1978) "Jazz Chants," in that students learn and repeat chorally in order to master stress patterns. However, it is different in that each rap and related activity was created to teach a specific stress pattern in English. The "rule" in each rap is stated within the lyrics and activities. These raps and related lessons have been compiled into a book, CD, and DVD called *Stress Rulz!* (Fischler, 2006). The publication is available through Pro Lingua Associates. Each track on the CD is followed by an instrumental-only track, so that students can practice the raps independently.

English proficiency is tied to many body movements, as well as speech organs (McNeill, 1992). This is why the raps are accompanied by various kinesthetic, auditory and visual activities that reinforce the stress patterns targeted within the raps.

Students must be explicitly taught that word and sentence stress convey meaning that can be even more informational than the actual word used. This is not necessarily the case in their native language. Since word and sentence stress are such salient factors of intelligibility, the course outlined in this study is almost entirely directed to these features of pronunciation.

IMPORTANCE OF STRESS UPON INTELLIGIBILITY

Stress is a suprasegmental property that begins at the syllable level. This property is comprised of both increased duration and volume when compared to other syllables within the word (e.g., popuLAtion, GOLDfish, MinneSOta). Stress placement often is coupled with rising intonation.

Likewise, certain words within a sentence are given prominence. For example, nouns, verbs, and adjectives are given prominence, since they carry the most information within a sentence. (The BIG BALL was THROWN by the BOY). New information is also given more prominence than old information in an utterance. Note the shift in prominence evident in the following lyrics:

i LIKE PIZza.

i LIKE my PIZza HOT.

i LIKE my PEPperoni PIZza HOT.

i LIKE my CHEEsy pepperoni pizza HOT.

These stresses shift as new information is added. *Pepperoni* and *cheesy* are both content words, adjectives in this case. However, *cheesy* receives more prominence in the final sentence because it is newer information.

A number of researchers have explored the prosodic component of stress from an English learner perspective. Since English word and sentence stress differs even from other stress-timed languages, it is imperative to explicitly teach the unique rhythm of English to all ELs (Benrabah, 1997). In this study, the ELs had either no reference

point or different reference points for stress allocation, which made English patterns seem very complicated and difficult to learn. With appropriate instructional methods, however, the learners were able to understand and show improvement in their production of English word and sentence stress.

Certain features of pronunciation contribute to overall intelligibility more than others. (Gilbert, 2001) points out that, regarding the area of phonology, the elements of stress, rhythm, and intonation emerge as the highest priorities that contribute to intelligibility. Furthermore, she posits that ELs need to achieve sufficient control over these phonological features to function as intelligible speakers. Stress is essential for a number of reasons. Although it is a universal phenomenon, word stress in English reduces both vowel duration and quality in non-stressed syllables. Other languages differ greatly in the manner they allocate stress in words. English stress allocation is considerably less predictable and more complex than that of other languages. This can cause considerable confusion for ELs who are accustomed to the more simple rules governing their native tongue. These learners have no inherent idea of where to assign stress in English. In addition, stress and rhythm patterns serve as navigational guides that lead to effective listening (Gilbert, 1994).

RATIONALE FOR THE STUDY

In my experience, non-native speakers (NNSs) frequently express great frustration when they fail to communicate effectively. The curriculum utilized in my school district does not include a significant focus on pronunciation instruction. In response to this deficit, I began to informally experiment with teaching stress and intonation using rap beats. I continued this technique for a period of three years in my secondary school ESL classes, and noted positive results. Some raps were created by the students themselves. The observed enthusiasm of students combined with the improvement in pronunciation led me to integrate a more significant pronunciation component into my language instruction time.

Why use music at the center of this methodology? The use of music and rhythm in teaching pronunciation is highly motivating and creates an environment of lowered anxiety (Lake, 2000). Additional studies indicate a strong correlation between successful pronunciation and musical methodology (Martinec, 2000; Voigt, 2003). English is a very musical language—both music and speech can be described as organized sound. In fact, all languages are “musical” in the sense that they have a prosodic pattern. The brain strives to detect patterns within sound in both speech and music. This processing takes place in two adjacent and closely related areas of the brain. For these reasons, I consider it valuable to implement music in the language-learning classroom.

Although in this study the amount of time devoted to pronunciation was limited due to curriculum constraints, a perceptible improvement in pronunciation proved evident. This finding prodded me to question whether a more intensive pronunciation program would result in even greater gains in intelligibility. Hence, my action research project evolved.

SETTING

The data were collected during a four-week summer school course, *Improving Pronunciation through Music and Rhythm*. The course was taught at a large high school in a major metropolitan area of the Midwest. Participants were invited to attend the class, due to their previous demonstration of difficulty using proper word and sentence stress in English. This difficulty interfered significantly with their overall intelligibility, as judged by their ESL teachers. Students attended class for

two hours, four days per week. Total direct contact time was thirty-two hours. The study was conducted over a four-week period. The students were also required to practice the rap songs for thirty minutes daily outside of class.

SAMPLE

The participant sample was comprised of six ELs in grades 9-12. Their English language proficiency levels varied from Level 4, (academic English skills equivalent to grades 7-8) to Level 5 (transitional ESL), according to Woodcock-Muñoz Language Survey results. At a minimum, all six students were at an advanced intermediate level of English language proficiency. This was an important consideration since the vocabulary base required for this course was quite advanced. The participants were also required to take notes, play pronunciation games, and discuss metacognitive concepts. The students ranged in age from thirteen to seventeen. Participation in the course was voluntary and students received an elective credit for completing the class.

The participants all carried over pronunciation characteristics from their primary language, which interfered with their pronunciation of English. The individual phonological structures of the primary language affect the articulatory programming of the lips, jaw, tongue, etc. Therefore, many overall patterns of pronunciation errors were language-specific (Swan & Smith, 2001). Although these first languages have diverse characteristics, they also share some common features where stress is concerned. All participants demonstrated difficulties with word and sentence stress placement in English. This is because their primary languages are more syllable-timed on the spectrum of syllable- to stress-timed language patterns. Following are some stress characteristics of the languages in this sample as well as some accompanying difficulties they encounter with English stress patterns.

Participant #1 demonstrated transfer of Farsi stress, which is highly predictable. Primary stress generally falls on the final syllable of words in the Farsi language. Farsi does not carry weak forms of stress, so the participant had difficulty with production and perception of weak forms of English speech. Participants #2 and #6 demonstrated various pronunciation influences of their multilingual background in West Africa. (These participants have had exposure to Creole English, Twi, Ga, Ewe, and French). Both African participants displayed difficulty with stress timing and rhythm. Contrastive stress, (e.g., I KNOW that, versus I know THAT), posed great difficulty for these students. Participants #3 and #5 were both from Asian language backgrounds. They tended to overstress weak syllables in English, because syllable reduction is infrequent in their first languages. They also tended to improperly stress final syllables of multisyllabic words. Since English stress patterns differ from Asian language stress patterns, these speakers sounded flat and staccato. Participant #4 is Somali and tended to give equal time to each syllable in English, much like the other participants. Weak syllables posed a problem and were often overstressed. This may be due to the Somali feature of stressing the penultimate syllable of words. This can lead to distortions such as "generalIty, geoGRAphy, and clarINet."

RESEARCH METHODOLOGY

This four-week action research project was designed to find whether overall NNS intelligibility can be improved through explicit instruction of stress rules and practice with rap music. Nunan (1992) defines action research as inquiry that is self-reflective and focused on problem-solving, expanding practice, or seeking greater understanding. According to Nunan, the greatest advantage of conducting action research is the situational aspect. This study begins with the following situation: Secondary learners who are unaware of specific issues relating to their misplacement

of primary word and sentence stress are taught how to improve this. The hypothesis is that secondary ELs can improve their production of word and sentence stress through identifying areas of need, learning rules about stress in North American English (NAE), and practicing these rules to original rap songs composed by the ESL teacher. Progress was tracked during this pronunciation class through daily tape recordings, journal entries, and teacher consultations.

It is difficult to definitively attribute improvement found at the end of the course to the variables introduced. This is the main disadvantage of action research (Nunan, 1992). Yet the positive correlation can be interesting to other ESL teachers, who may wish to employ the strategies described in this study.

INFORMATION ELICITATION

Background information about the participants in this study was gathered in order to develop appropriate instructional methods. The results of the students' most recent English proficiency test scores helped determine which types of intervention I chose to utilize in this class. An initial elicitation questionnaire provided further pertinent information about the participants. Questionnaire items included information about first languages, educational backgrounds, and student attitudes about pronunciation (see Appendix 1). The information gleaned from this questionnaire helped to provide goals and objectives for the course. The attitude items were particularly revealing and guided many of the future journal topics. The questionnaire was not intended as a base score analysis.

The students unanimously responded that they believe it is possible to improve their pronunciation. It was particularly useful for me to know that I was to teach such a positive group of students, who both desired and fully expected to improve their speaking skills. Awareness of the high degree of reception and dedication of the students led me to hold high expectations for positive results.

Following completion of the elicitation questionnaire, the students discussed specific situations in which they had experienced difficulty communicating effectively with native speakers. All of them verbalized at least one specific scenario involving a phone call, classroom situation, or work experience. The students expressed great anxiety about speaking in front of groups, job interviews, and making new friends. Sharing their stories and frustrations helped the students gain a sense of community and trust. We then established expectations for the course. The students enjoyed taking ownership of these expectations.

DIAGNOSIS AND ANALYSIS

Although ELs are aware that others are often unable to understand them, they are rarely aware of the underlying pronunciation problems. Diagnosis and analysis are the important first steps towards improvement.

Pretests were conducted on audiotape. The rationale for audiotaping versus videotaping is that raters were given no visual cues to influence their eventual scoring of pre- and post- test intelligibility. This insured greater validity. Each participant recorded two brief speech samples on a high quality digital voice recorder during the first class session. The first sample was a brief unrehearsed reading sample. This text contained words and phrases exemplifying the specific stress rules that would eventually be addressed during the course (see Appendix 1). Since no repeated exposure to this passage occurred during the four-week course, memorization could not take place. Evaluation of the initial and final readings of these speech samples were later compared for the purpose of this study. The second

speech sample obtained was less structured, elicited by a visual stimulus. Participants were asked to verbalize the "story" taking place in a picture.

After listening to the initial speech samples, the ESL instructor tallied the number of correct stresses for individual participants, and then calculated the average. Additionally, the ESL teacher reported her perception of each student's overall intelligibility.

A final measurement consisted of a Likert scale completed by three NAE adults who were neither ESL teachers, nor actively involved in the pronunciation course. This scale was based upon descriptors on the Minnesota Student Oral Language Observation Matrix (SOLOM) inventory (Minnesota Department of Education, 2003). The raters were trained on practice samples, in order to ensure inter- and intra-rater reliability. The raters were presented with speech samples presented in random order; they didn't know whether samples were pre- or post-class recordings. This was done to avoid influencing the raters to score post-class samples higher than pre-class samples. After participants were tape-recorded reading at the end of the course, the same measures were used to evaluate their progress (i.e., tallies, NAE adult ratings, and self- assessment.)

CONSULTATION

The students listened to tape recordings of themselves reading several pages per day of a humorous book. This book lowered the affective filter of the participants, due to its entertaining content. Initially, students were uncomfortable with both recording and listening to themselves. Most of the students cringed or laughed nervously upon hearing themselves on tape the first time, but they also gained some objective sense of how they sound to others. Eventually, the students became more accustomed to tape recording.

Following the daily recording sessions, the students had brief, 5-minute individual consultations with the ESL instructor. They listened to the recording and evaluated areas of both strength and concern. The students then wrote journal entries detailing the issues covered in their consultations. These recordings of observations, reflections and reactions to pronunciation facilitated the students in discovering their changing attitudes and ongoing creation of attainable goals regarding pronunciation. Some journal topic questions included: "Describe a time you felt frustrated because someone did not understand you." "How do you feel about recording your voice and listening to the recording?" "Are you starting to become more aware of stress patterns in the speech of others?" "Which stress rule has been the most useful to you so far?" The instructor responded to the journal entries in writing, after collecting them weekly. This dialogue created open communication, a feeling of security, and it reduced anxiety over time. By the end of the course, all of the students were able to correctly identify faulty rhythm patterns within their tape recordings.

INSTRUCTIONAL IMPLEMENTATION

The following synopsis details the main foci covered during the pronunciation course. Students were first introduced to auditory discrimination tasks in order to determine whether they could hear the difference between stressed and unstressed syllables.

Auditory discrimination

The first class session included a discussion of segmental and suprasegmental aspects of speech. The importance of proper placement of stress was illustrated

through the following example in which the teacher presented the same sentence three times, demonstrating three different errors.

The first sentence was read by the teacher with a segmental error (i.e., frontal lisp of sibilants). *Thereth a pothibility that ith going to thorm today.* The following two presentations were read with no segmental errors. The sentence was read a second time without stress or changes in intonation. Hence, this presentation was read with a monotone and sounded robotic. Finally, the sentence was read with improper placement of stress. *There's a possibilITy that it's goING TO storm TOday.* When asked to rank the intelligibility of the three readings, the students unanimously ranked the first example as most intelligible and the last example as least intelligible. This activity helped the students to understand the power of word and sentence stress in carrying meaning.

Next, a simple activity was introduced where the students held up a *same* or *different* card following the teacher's productions of word pairs such as *APple* and *inVITE*; *rePORT* and *SAlad*. The students were quickly able to identify stress patterns that were the same or different.

Syllabification

Once the importance of stress was understood, the students were enthusiastic to learn how to improve their own production of stress. They began with simple exercises in syllabification, which is a necessary first step in understanding word stress. It was surprising how much difficulty the students demonstrated in counting out syllables. This posed the greatest problem for students who demonstrated epenthesis in their habitual speech. Internal epenthesis exists when a speaker adds vowels to break up a consonant cluster (e.g., substitution of *worldid* for *world*). External epenthesis exists when a speaker adds a vowel, and consequently a syllable, to the outside of a consonant (e.g., substitution of *estreet* for *street*).

Two class periods were devoted to syllabification in order fully gain the skills necessary to decipher boundaries and count out syllables. Students worked in pairs taking turns pronouncing polysyllabic words while the partner counted the syllables on their fingers. Initially, the students made numerous errors in counting, but they improved with practice. The syllabification stage required a good amount of ear training.

Next, the students were presented worksheets for practice in dividing words into syllables. This controlled practice was first oral, and then in written form (e.g., vic-to-ry). Finally a group activity requiring student elicitation ensued. The teacher handed out an original worksheet containing spaces for words ranging in length from one to five syllables. The students were then given a category such as fruits or sport teams. They were then timed for one minute. The goal was to write as many words as possible within the given category with the proper number of syllables. No points were given if syllables were miscounted (e.g., a student wrote *broccoli* in the space for a four-syllable word). The students generated their own words for this activity, which built in authenticity to the activity. This game was a favorite among this group and was revisited many times throughout the course (see Appendix 2).

After the first two days, the students became more comfortable with counting syllables and seemed to enjoy this new empowerment. They also were more aware that one syllable within a word receives the strongest stress and length. Once students demonstrated a good understanding of syllabification, they moved into learning one word stress pattern or "rule," each day, paired with an accompanying

rap song. The patterns were selected on the basis of frequency and usefulness in speaking American English (Murphy & Kandil, 2003).

Guided and controlled practice using raps

The sequence of controlled, guided, and communicative practice was utilized. The general sequence follows:

Planning Stage

- Photocopy the rap for each student.
- Prepare other materials as stated in lesson.

Teaching Stage

- Listen to the rap and have students follow along by tracking print with a finger or pencil.
- Have students circle unfamiliar vocabulary. Discuss possible meanings.
- Have students make flashcards for new vocabulary words, including slang expressions. Practice using the words.

Rap-a-long Stage

- Play rap again.
- Rap chorally without music as many times as needed.
- Rap with the version that has lyrics.
- Rap with the instrumental-only version.
- Assign 30 minutes of practice with both tracks outside of class as homework.
- On the following day offer opportunities for review by allowing students to perform raps individually or in small groups.

Following are some important details:

The students stood up, stretched rubber bands, beat drums etc. to emphasize stressed syllables. For example, the students would stand up and sit down on a compound noun such as *TOOTHbrush* (see Appendix 4).

The first introduction of the rap would be very slow. A specialized CD player with pitch and tempo control was purchased for this course. This allowed the instructor to begin practicing the raps very slowly at first, and then gradually increase the rate of speech to a more natural level. Then, the tempo was gradually increased on consecutive trials. The students enjoyed the challenge of rapping as fast as they possibly could. Speed seemed to be motivating since it is common in rap music.

The students each practiced a given rap daily on personal CD players. They reported listening to and practicing the songs for more time than was required by the teacher. This extra rehearsal was evident when they returned to class capable of reciting the raps effortlessly and often by memory.

Students were split into groups and alternated lines or stanzas. Once the class was reciting the rap smoothly, the instrumental-only track (sans the rapper) was introduced for added challenge. It was necessary to slow down the tempo once again, as the students attempted to rap independently. Following incremental increases in tempo, some students would volunteer to rap alone, with other students acting as sidekicks, adding "beat box" percussion sounds. The sidekicks really enjoyed ad-libbing. Most of the students could not contain themselves from moving or dancing to the rhythm. I believe it is plausible that this rapping fun can contribute to students' perceived sense of empowerment and inclusion. Since rap music is so popular among today's adolescent culture, it may stimulate learning. Lowered anxiety certainly supports Krashen's theory of language acquisition, (Krashen and Terrell, 1983).

Throughout the guided and controlled activities, the students were encouraged to exaggerate stressed syllables and words within a sentence. This helped the students internalize the sound and feel of primary word and sentence stress. The students with the least intelligible speech seemed to improve more obviously than the others. Participants 5 and 6 made the most marked initial progress, as judged by the instructor and the classroom volunteer. These two students had been consistently producing stress on normally unstressed syllables. Therefore, the listener had to attune very carefully in order to understand the students. During the guided and controlled practice activities, the students were quite easily understood. The elements of repetition and rehearsal included in this phase of instruction consumed the majority of the time spent in this course.

Word stress

Word-level stress serves as a starting point for development of learner awareness of speech-body connections. Teaching word level stress first will also lead to future expansion to phrase, sentence and discourse levels (Murphy, 2004).

The following simple patterns governing word stress were introduced one at a time:

- One word has only one primary stress. If you hear two primary stresses, you are hearing two words.
- Only vowels are stressed, not consonants.

Over the next weeks, students were presented with the following categories of word stress patterns. Each "rule" was practiced both during and outside of class through a corresponding rap song. The rules were:

- Approximately 75% of two-syllable words receive stress on the first syllable (e.g., F**A**ther, W**I**Ndy, M**A**Nsion)
- Cardinal numbers (e.g., S**I**Xty versus six**T**EEN)
- Reflexive pronouns (e.g., him**S**ELF, them**S**ELVES)
- Compound words that function as nouns (e.g., DO**G**house, F**I**REman)
- Functional shift: words with identical spellings but different functions
Nouns carry stress on the first syllable; verbs carry stress on the second syllable.

| <u>NOUN</u> | <u>VERB</u> |
|-------------|-------------|
| INsult | inSULT |
| REcord | reCORD |
| REbel | reBEL |

- Stress preceding certain suffixes such as *-tion*, *-ic*, etc. (e.g., creAtion, iRONic) This knowledge of stress patterns of polysyllabic stress patterns assists ELs become confident spellers and improves their ability to predict pronunciation of orthographic forms of new words encountered (Dickerson, 1987).

Each category of word stress was imparted and practiced through listening discrimination tasks, controlled practice (this included the corresponding raps), guided practice, and finally communicative practice, as outlined by Celce-Murcia, Brinton, & Goodwin (2000). The students practiced stressing syllables and words by stretching rubber bands, standing up and down, tapping on desks, clapping, and beating drums, and ultimately, by speaking to the rhythm of rap music.

Once the students' knowledge and practice of word stress was evident, some general patterns of sentence stress were introduced. First, students were made aware of utterance lengths being equivalent to multisyllabic word length. Activities were introduced to encourage students to match stress patterns of words to phrases or sentences (e.g., *elecTRician* and *I don't LIKE it.*)

The following stress patterns were introduced and practiced through corresponding activities and raps:

- English syllables are often shortened between strongly stressed syllables (Appendix 3)
- Content words are stressed (e.g., nouns, verbs, adjectives, and others which carry the most information)
- Sometimes auxiliary verbs are stressed to convey emphasis (e.g., He HAS been going to school every day!)

Each student received a CD of rap music to take home for practice. Each rap was recorded on two consecutive tracks, the first with lyrics and the second with instrumentation only. This gave the students an opportunity to sub vocalize first, and then to practice solo. During class, groups were formed to alternate stanzas and compete.

Bio-feedback techniques of pronunciation were introduced and used as a daily warm up. Vocal and muscular exercises were practiced to increase flexibility and range. Students used hand mirrors to observe muscle movements as they correspond to sound. The students found their images in the mirrors to be ridiculous at first. They rolled and folded their tongues, puckered and smiled, massaged their jaws, and did vocal warm-ups. Again, as time passed, the students became more comfortable with these exercises. They were encouraged to practice the exercises at home.

The students also learned basic anatomy of the speech mechanism to increase their awareness of points and manner of articulation. These activities helped the students to see and feel what happens when they produce stress. Although articulation is more often associated with segmental aspects of pronunciation, it is also linked to

suprasegmentals such as stress, rhythm and intonation (Murphy, 2004). In fact, these aspects of pronunciation are virtually inseparable. The students took the anatomy lesson very seriously. The knowledge they gained seemed to empower them.

Communicative practice

During the final week of the course, students participated in less structured tasks. Students executed various activities involving role-playing scenarios, information gaps, conducting interviews, and holding informal discussions. Some of these activities were videotaped, and then analyzed by the students. Predictably, there was less carryover evident in these activities than in the guided and controlled practice activities. It was, however, very encouraging to see the students correctly identify errors in stress production as they viewed the videotapes. Being able to recognize correct and incorrect productions is a significant step to internalizing stress patterns. Auditory discrimination is a key example of pattern recognition.

The teacher's monitoring during some of these activities revealed that the students were able to adjust their placement of stress. Error correction was used sparingly, and limited to cases where intelligibility was significantly undermined. The communicative phase of this course was integrated throughout the daily lessons.

FINAL ASSESSMENT

Participants were tested on their knowledge of and application of word and sentence stress patterns. They tape-recorded the same sample of text they had read at the beginning of class. They also repeated the pictorial story task on tape. Results were tallied and compiled into total raw scores and percentages. Pre/post scores were recorded in a table to display the individual students' total scores and percentages. A bar graph was developed from this data to provide additional visual illustration of the before and after results. The data collected from the ESL teacher have also been converted to a table of pre-post scores for each student. Three NAE adults were trained to rate the overall intelligibility of the students before and after the course. They listened to various speech samples to practice rating intelligibility. This increased intra-rater reliability. These training samples included both native speakers (NSs) and NNSs. The raters then scored the intelligibility of the participants according to the following scale:

Rate the speaker on a scale of 1-5, with 1 being the least intelligible and 5 being most intelligible and most nearly approximating pronunciation of a native speaker of American English.

- 1) Speaker is virtually unintelligible.
- 2) Speaker is very difficult to understand, requiring great concentration on the part of the listener.
- 3) Pronunciation occasionally interferes with intelligibility.
- 4) Speaker is usually intelligible, although pronunciation may slightly interfere with understanding.
- 5) Although an accent may be present, pronunciation approximates that of a native speaker of American English to a degree of not interfering with intelligibility.

The scores were analyzed and compared.

Students practiced continuous informal self-assessment through individual consultation with the ESL teacher and through reflection about their learning in their journals. On the final day of class, students completed an informal survey regarding the class and how successful they deemed it to be.

EVALUATION

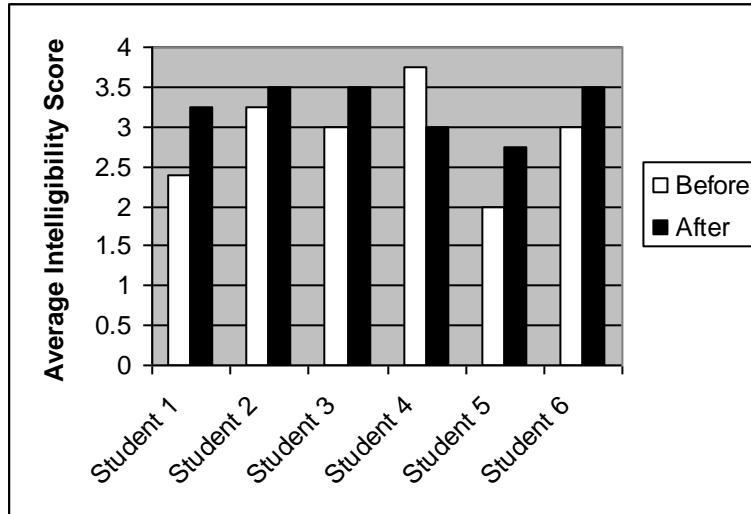
To summarize, this four-week project involved six students in an intense program of learning and practicing NAE stress patterns. Initial information elicited from the students was followed by collection of speech samples. The resulting analysis helped guide the scope and sequence of the course. The course was designed to incorporate adequate and appropriate auditory discrimination, controlled, guided and communicative practice. Particular focus was devoted to activities related to the rap songs specifically composed for this course.

Final assessments were developed in order to answer the question "Did the rap method improve the students' use of word and sentence stress?" The original unrehearsed speech sample was again presented and recorded during the last session of class. The students were informed that people whom they have never met would evaluate the initial and final speech samples. All six of the original students were present for the final assessments.

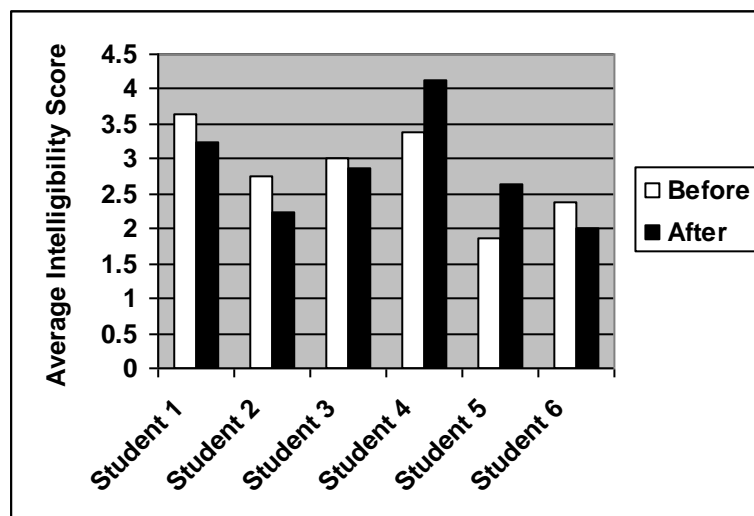
The recorded speech samples were mixed up and dubbed onto a CD. Readings of the unrehearsed script were randomly mixed in with picture-prompted speech samples. The samples were later judged by three NAE adult speakers. These evaluators were not in any way affiliated with the field of ESL. The evaluators rated student intelligibility on a scale of 1-5, with 1 being the least intelligible and 5 being the most intelligible.

This basic scale representing the unrehearsed reading samples provided some indications that intelligibility had improved over the four-week period of study. Although the amount of change may not be statistically significant, five out of six participants received higher ratings in the final speech samples. The perceived improvement in intelligibility may have been greater if the duration of the class had been longer.

Figure 1 illustrates the averages of the numerical responses of the three evaluators in this study. This graph represents the unrehearsed reading samples.

Figure 1. Pre/Post Intelligibility Score on Unrehearsed Reading Sample

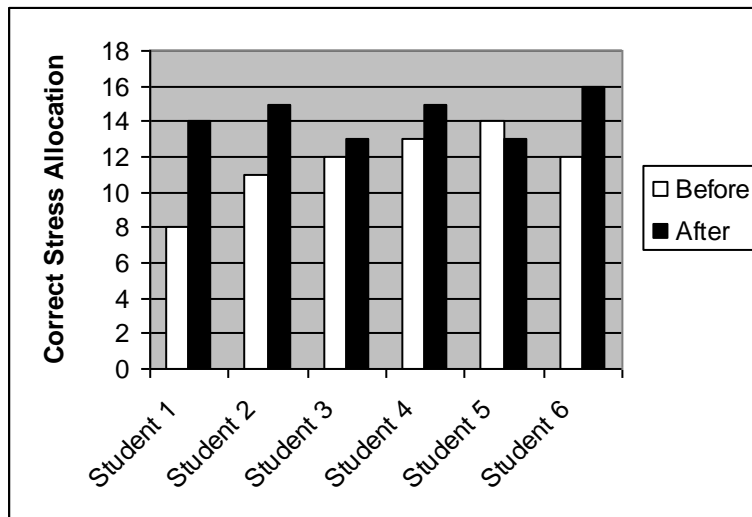
The before and after ratings of the picture-prompted speech samples were less impressive. Since this task was considerably more spontaneously generated, the chances for carryover were slim. Four participants actually had decreased scores on this task. A plausible explanation would be that more than four weeks of practice is necessary in order to see consistent improvement in spontaneous speech. Another possible reason the results are less impressive is that the word stress pattern features elicited by this picture did not match the word stress patterns taught during class (i.e., the students may not have had a chance to demonstrate the stress patterns learned in class.) Anxiety may also have played a role; the students were aware that the picture prompt would be used as a final measure of their production. All results are inconclusive, given the short duration of the class. Figure 2 represents the raters' average scores given on the picture prompt task.

Figure 2. Pre/Post Intelligibility Score on Picture Prompted Speech Sample

The instructor also listened to the speech samples collected and tallied the number of appropriate word and sentence stresses. This was only done with the unrehearsed reading samples. The reason for this was that the script was the same for each participant, allowing for accurate recording of stress marks as the samples were

listened to. The spontaneous speech samples were sometimes impossible to understand, making accurate recording of stress unlikely. The speech samples were reshuffled onto another CD so the instructor did not know whether a sample was from the beginning of class or the end. Again, five of the six students increased the number of correct stress allocations, as judged by the ESL teacher. The tempo on the CD was slowed down, in order to accurately record stress marks over the words on paper. Figure 3 summarizes the number of correct stress placements, as judged by the instructor.

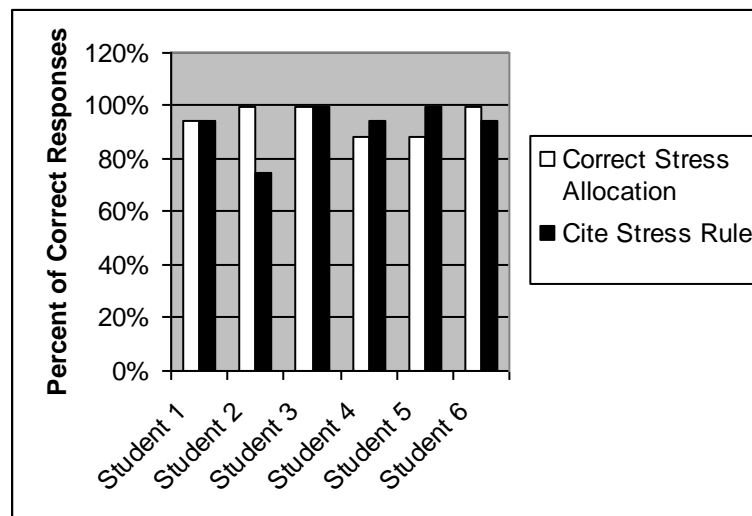
Figure 3. Pre/Post Score on Stress Allocation



A final assessment was conducted using flashcards with targeted words and phrases. The students were assessed in the following areas:

- Correct placement of stress.
- Correct citation of the word or sentence stress rule for each flash card.

As shown in Figure 4, the students displayed impressive performances on this assessment. They showed confidence and pride in demonstrating the mastery of metacognitive strategies.

Figure 4. Score on Final Assessment**Final questionnaire**

The last day of class included a final questionnaire. The students' responses were quite positive. All six students indicated affirmative responses to the following items:

- They improved their pronunciation skills during the course.
- They learned how to stop and correct errors in their speech because they know some stress rules.
- They would be willing to take another similar course in the future.
- They believed rap music is a good way to learn pronunciation. Some additional comments recorded:

"Talking is good, but the music helps more."

"Music helps me remember the rules."

"It is fun to work with rap music, so I remember."

"It's fun to repeat and learn, because it's music."

- They would continue listening to the CD and practicing stress rules even though the class was ending.

"Yes, yes, yes, yes, yes, yes I will!"

- They felt new confidence in their speech.

"I didn't trust myself before when I was talking, but now I do."

"I think I'll be more confident about my speech in 12th grade."

Two of the six participants reported that someone outside of the class had commented on their improved pronunciation. Additional comments made:

"Thanks for making me a better speaker than I was before."

"Thank you very much. Now I think I'm not nervous speaking to teacher or other. You've help me a lot."

"I think this class is the best. It improved my pronunciation this summer."

OBSERVATIONS AND FIELD NOTES

The instructor wrote narratives throughout the course that provide an alternative look at progress made by the students. Here are some observations recorded:

- Some students demonstrated difficulty in counting syllables, even at the end of the course.
- Students' response to pattern recognition games was very enthusiastic.
- Participants 1 and 5 attended class sporadically, which could have impeded progress.
- Participant 5 was considerably more shy and self-conscious than the other students. She had the lowest intelligibility in the class and seemed aware of this. She was sometimes reluctant to participate.
- Participants 4 and 6 had the most outgoing personalities and had a tendency to dominate the class. They needed reminders to let others have a chance to answer questions. Perhaps there is a correlation between personalities that are risk-taking and positive pronunciation outcomes.
- The volunteer helper reported that students increased their awareness of errors when listening to themselves on daily tapings. She also noted that the students' frequency of self-correction increased with time during class time discussion and games.
- Both the instructor and the volunteer were impressed by the speed and accuracy the students displayed in memorizing lyrics and complicated musical rhythm patterns.

SUMMARY

This study was developed in order to determine whether rap music may be a valuable instructional tool for improving word and sentence stress in English language learners. The first step was collecting relevant data from the students in this sample. Next, speech samples were obtained and evaluated. Then, the instructional phase was implemented using controlled, guided, and communicative practice. The final evaluation procedures were conducted in order to provide a general indication of whether intelligibility was affected as a result of the intervention of rap music.

According to the responses gathered from the three evaluators, there was general perceived improvement in the performance of most students. Perhaps the most valuable result is that the students in this sample gained a sense of autonomy through learning metacognitive skills regarding word and sentence stress production. Their focused efforts can certainly contribute to future competence in pronunciation.

QUESTIONS

Numerous questions have arisen as result of this study as well as in the years I have been using this method of pronunciation. I encourage further research to examine these questions:

- What are the connections between music and language learning?
- Just how salient are personality factors and learning styles in acquiring good pronunciation skills?
- Are some ELs simply more “talented” than others in picking up more native-like accent?
- Did the fact that this course was a voluntary experiment impact the results?
- Will a smaller, intermittent dose of rap-based instruction yield similar positive results?
- Will a longitudinal study reveal positive gains will last over time?
- Would similar results occur if a larger sample size were used?
- Will intonation and linking also improve when supported through rap-based instruction?
- Which activities in this study caused the most pronunciation gains – was it the rap activities alone, the reading and reflective journaling, or the combination of these activities?

Indeed, research is in the infancy stages regarding many of these topics. I encourage ESL teachers to forge ahead and introduce this method to teach stress patterns. Your students will thank you! There are many teachable moments when raps can be incorporated into your lessons (see Appendices 3 and 4 for sample raps relating to cardinal numbers and compound nouns). Raps can be spread out throughout the school year and/or used on an “as needed” basis. I close with the lyrics to a rap that reflects the frustration experienced by many of our students. Happy rapping!

Stress Rulz!

DON'T you HATE when PEOPle ASK,

"WHAT did you SAY?"--a HUNdred times a DAY.

You KNOW your ENGLISH, OH so WELL

But STILL some PEOPle JUST can't TELL.

BeLIEVE me, it's KIND of a DRAG;

BeLIEVE me, it AIN'T no TREAT,

When EVery TIME you TRY to SPEAK,

You're ASKed to STOP and THEN rePEAT.

Stress RULZ! ■ Rhythm ROCKS! ■

To MAKE yourSELF more UNderSTOOD,

You'll LEARN stress RULZ, `cuz EVerybody SHOULD.

STRESS and RHYthm ARE the KEYS

You NEED, NOW your CONverSAtions

ARE GUARanTEED to

SucCEED. NEVer aGAIN will ANYbody

PLEAD. "Now, WHAT did you SAY?"

--A HUNdred TIMES throughout the COURSE of a DAY!

Stress RULZ! ■ Rhythm ROCKS! ■

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Janelle Fischler has taught K-12 students for over 14 years in the areas of English as a second language, speech and language pathology, and music instruction. She earned her B.S. degree from the University of Minnesota and her M.A. in ESL from Hamline University. She has merged her interests and experience to create an innovative and effective method for teaching pronunciation. Janelle teaches ESL in the North St. Paul-Maplewood-Oakdale School District and is an adjunct instructor at the University of St. Thomas.

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APPENDIX 1

ELICITATION QUESTIONNAIRE

1. What is your first language?
2. What other languages do you speak?
3. How many years have you attended school?
4. How many years of ESL classes have you had?
5. Was there any pronunciation instruction in your ESL classes? How much?
6. Why do you want to improve your pronunciation?
7. Do you believe you can improve your pronunciation? Why or why not?
8. Why do you think you may have pronunciation problems?

UNREHEARSED READING SAMPLE

Hello, I am a student and I'm taking a class to improve my pronunciation. There's a gigantic amount to learn, but this class will make it as enjoyable as possible. I intend to learn about American English stress patterns, so that I'll be easier to understand. Soon, I'll be able to tell you the rules by myself.

I really want to learn more about pronunciation because I must speak in front of the whole classroom. Better pronunciation will permit me to feel more confident in every situation. I will record my speech many times in order to discover problems and to listen for improvements. I will also keep a record of my reflections about how I feel about my speech.

There will be seventeen days of class and I realize that good attendance is very important. I will practice for at least twenty minutes each day with my rap CD. I will copy rules from the blackboard and try to memorize as many as I can. Will this rap method really work? After working really hard, I may find that this method really does work!

APPENDIX 2

Syllabic Steps

Directions:

Write down the category your teacher gives you. On the steps, write down words that are members of that category. Try to use one, two, three, four, and five syllable words.

Category: _____ **Time limit:**
1 minute

| | | | | | |
|--------------------|--|--|--|--|--|
| 1 Syllable | | | | | |
| 2 Syllables | | | | | |
| 3 Syllables | | | | | |
| 4 Syllables | | | | | |
| 5 Syllables | | | | | |

APPENDIX 3

Cardinal Rule

| | |
|-------------|--------------|
| 13 thirTEEN | 17 sevenTEEN |
| 14 fourTEEN | 18 eightTEEN |
| 15 fifTEEN | 19 nineTEEN |
| 16 sixTEEN | |

Well, you become a teen when you're thirTEEN.

How old should you be to drive? SixTEEN.

And you can vote when you're eightTEEN.

And the year after that you're nineTEEN.

| | |
|-----------|------------|
| 20 TWENTy | 60 SIXty |
| 30 THIRty | 70 SEVENTy |
| 40 FORty | 80 EIGHTy |
| 50 FIFty | 90 NINety |

Ten plus ten equals TWENTy.

You might buy a house when you're THIRty.

You may retire when you're SIXty.

And you know you're old when you're NINety.

Let's compare the different stress

Of the two groups of numbers we must address.

I said, Let's compare the different stress

Of the two groups of numbers we must address.

| | |
|-------------|--------------|
| 13 thirTEEN | 17 sevenTEEN |
| 30 THIRty | 70 SEVENty |
| 14 fourTEEN | 18 eightTEEN |
| 40 FORTy | 80 EIGHTy |
| 15 fifTEEN | 19 nineTEEN |
| 50 FIFTy | 90 NINety |
| 16 sixTEEN | |
| 60 SIXty | |

So don't forget this cardinal rule

We use inside and outside of school.

People will know what number you mean

When you tell the world you're only sixTEEN.

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APPENDIX 4Compound *Nounsense*

Don't be scered!*

When we put two nouns together to make a long word,

The very first syllable is more strongly heard.

| | | | |
|------------------|------------|-----------------|-----------|
| dog + house... | DOGhouse | hard + ware... | HARDware |
| lip + stick... | LIPstick | book + store... | BOOKstore |
| dip + stick... | DIPstick | drug + store... | DRUGstore |
| tooth + brush... | TOOTHbrush | bath + room... | BATHroom |

I lost my only TOOTHbrush; I need to find it.

I looked in the garbage, then I looked behind it.

I retraced my steps to the BOOKstore, it wasn't there

So I took a bus to the fair.

The lady at the carnival wore LIPstick,
 She told me to check under my hood by my DIPstick.
 No luck when I looked in a DOGhouse,
 I only found a tennis ball and an old blouse.

Off to the HARDware store to buy a TOOTHbrush.
 `Cuz the DRUGstore is too far, and I'm in a rush.
 So I bought a new brush just like before.
 I ran home but beyond my BATHroom door,

I saw my TOOTHbrush that I thought was lost
 In my brother's hand. I felt double-crossed.
 Still this story ends as happy as another.
 I got my TOOTHbrush back from my little brother.

Repeat second stanza (DOG+house, etc.)

*scared, afraid

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