Rap to Read: Employing a Culturally Relevant Curriculum with African American Students

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Abstract: This study examined the effects of using rap music on the reading skills of 2nd Grade African American students. The sample consisted of 105 students within eight classrooms in two Miami-Dade County public schools. Results revealed that rap was helpful for both fluency and comprehension instruction.

Research suggests that African American children are more likely to have reading difficulties than their Caucasian counterparts (Donahue, Voelkl, Campbell, & Mazzeo, 1999) explainable, in part, by the failure of school settings to recognize and adapt to the students’ readiness to learn. This mismatch between what students have learned at home and what is required of them in school can have a profound effect on student performance and teacher perceptions of that performance (Alvermann & Xu, 2003; Au, 1980). For example, middle-class Anglo mothers focus on didactic naming and pointing (e.g., Look at the red truck) whereas African American mothers focus on affective dimensions (e.g., the red truck is pretty; how does it make you feel; Blake, 1994). These differences affect transfer in the use of oral-verbal styles in mothers’ verbal interactions with their young children. The interactions tend to be topic-associative (i.e., more like a conversation) with African American mothers whereas Anglo mothers’ verbal interaction tends to be linear narrative (i.e., a discussion in which the parent expects a specific answer from the child). When such a mismatch occurs in the interaction of African American students and Anglo teachers (or vice versa), the result is a distorted negative perception of a “deficit” in the performer (student/teacher) or the observer’s (teacher/student) communication skills. Teaching to home cultural contexts in the early grades is a culturally responsive (or culturally compatible) way of accommodating to these differences in readiness thereby making the transition from home to school an easier one (Ladson-Billings, 1995).

The purpose of this study was to examine a way of adapting to cultural differences by employing a culturally relevant curriculum with African American students to facilitate reading fluency. Fluency is defined here as involving the ability to decode words quickly, to permit a smooth flow of text. In addition, fluency is accompanied by a rhythmic quality that is believed to play an important part in the acquisition of meaning (Neisser, 1967). Rhythmic quality includes the phrase structure and grouping of words. The underlying assumption is that the use of familiar rhythmic qualities by the reader, that is, culturally relevant or culturally compatible skills, builds on the cognitive backgrounds of the reader in facilitating reading comprehension.

Conceptual Framework

A combination of reading words accurately, automatically, and with proper prose is considered fluent reading (Dowhower, 1991). As a child begins to read words accurately and automatically, he/she spends less time processing unknown words, allowing more time for comprehension. An able prosodic reader uses stress, tempo, and intonation advantageously, thereby reducing cognitive overload (such processes as word decoding, identification, and lexical access limit the capacity of short term memory, preventing sufficient opportunity for the additional process of comprehension). The second grade is a critical period for going from word

calling to fluent reading; the reading growth spurt afforded during this transition period permits
the use of a culturally appropriate method for influencing reading fluency and comprehension. I
shall examine the effects of such a method by employing a variation of the Fluency Development
Lesson (FDL) developed by Rasinski, Padak, Linek, and Sturtevant (1994). The adaptation
involves overlaying reading lessons with rap music, which is predominantly characterized by its
rhythmic qualities.

By using the rap music format in place of a poem in the FDL both rhythmic and cultural
components are incorporated, that is, “the words, phrases, and poetic statements are joined in
time to a musical beat” (Yasin, 1997 p. 43). The use of rap music in the curriculum is not without
controversy. Some people believe that only the classics (i.e., Western culture) should be taught
and to use anything else would be substandard (Bloom, 1987; Hirsch, 1987). Yet, both anecdotal
and empirical evidence suggest that rap accompanying school lessons has helped students
increase their sight word vocabularies and overall reading skills (Gilmore, 1983; Morrow-
Prelow, 1994; Pinkard, 2001). In addition, the cultural link has enhanced student motivation as
inferred by increases in the number of books read, the levels of reading enjoyment, and the
amounts of time spent reading at home (Morrow-Prelow, 1994). Transfer is facilitated to the
degree the home culture can be matched to the curriculum, instruction, texts, and performance
requirements.

Hypothesis

Stated as a hypothesis, the rationale implies that

H1: An instructional procedure that employs a culturally appropriate behavioral
requisite facilitates the reading rate of students within that culture.

H2: An instructional procedure that employs a culturally appropriate behavioral
requisite facilitates the acquisition of decoding skills of students within that
culture.

H3: An instructional procedure that employs a culturally appropriate behavioral
requisite facilitates the acquisition of comprehension skills of students within that
culture.

Briefly, it is concluded from the rationale that text practice within a rap context enhances the use
of the rhythmic qualities, cultural knowledge, and story telling by adapting to the cultural
background of the students. Using such a practice facilitates the acquisition of reading skills of
African American youths by capitalizing on their cultural backgrounds that helps transfer what
they have learned to make the practice easier to follow and comprehend.

Method

This section describes research design, sample, intervention, and data collection method.

Research Design

The overall design is quasi-experimental (Gall, Gall, & Borg, 2003). Fluency and
decoding scores were separately analyzed in a 2 X 2 X 2 X (2) mixed ANOVA. The between –Ss
variables were type of instruction (rap or traditional), teacher (teacher A or teacher B), and
school (school X and school Y) in which the type of instruction was nested. The within-subjects
variable was the time of testing (pre- and post-tests). The comprehension scores were analyzed in
a 2 X 2 X 2 X (3) mixed ANOVA. The between –Ss variables were type of instruction (rap or
traditional), teacher (teacher A or teacher B), and school (school X and school Y) in which the
type of instruction was nested. The within-subjects variable was the time of testing (beginning, middle, and end tests). The use of the ANOVA removed two sources of variance: school and teacher. T tests were used to further investigate differences. The .05 level of significance was selected for data analysis.

Sample
Eight intact 2nd grade classrooms (hence, quasi-experimental) from two elementary schools (Lentin and Lakeview), serving African American students, were randomly assigned to an experimental and a control group (four classes in each group). There were 105 African American students who participated in the study.

Intervention
The intervention was based on the Fluency Development Lesson as developed by Rasinski et al. (1994) and includes the following six steps: (a) make predictions about the text from the title, (b) read it to the class, (c) discuss the text, (d) read the text chorally, (e) read it with a partner, and (f) perform the text. Students received eight, half-hour sessions (one session per week) covering all seven elements of the FDL. To control for teacher effect, four treatment classrooms using rap and four control classrooms using narrative texts were randomly assigned to two teachers. Each teacher taught an equal number of control and rap classes. The two teachers were trained on how to implement the steps of the FDL and were given tape-recorded versions of the texts (rap and narrative) to be used with the classes.

Treatment group. The treatment group used a rap text during the FDL. Each rap text contained between 80-120 words and had a readability level ranging from primer to 3rd grade.

Control group. The control group used a narrative text during the FDL. Each narrative text contained between 80-120 words and had a readability level ranging from primer to 3rd grade.

The two texts used each week had the same readability level and the same number of words per passage.

Method of Data Collection
All of the students were pre-tested (September) and post-tested (January) on the Oral Reading Fluency (ORF) and the Nonsense Word Fluency (NWF) portions of the Dynamic Indicators of Basic Early Literacy Skills Test (DIBELS; Plake, Impara, & Spies, 2003). A comprehension quiz containing four questions related to the text assigned during the FDL was given at the beginning, middle, and end of the 8-week period.

ORF was measured by the student orally reading three grade level passages, with readabilities between 2.4 to 2.7, for 1 minute each. Only the middle ORF score was used as the valid reflection of the child’s reading fluency.

NWF was measured by the student’s ability to read a series of nonsense words that contain common vowel/consonant and consonant/vowel/consonant patterns. It is to be noted that the NWF performance is not influenced by grammatical context since words are presented in isolation. The score was the number of the correctly pronounced letter sounds/words read in one minute.

The three comprehension quizzes contained the following four questions: factual, inferential, vocabulary, and experiential. The quizzes were a written test, with multiple-choice type answers, administered upon the completion of the lesson.
Results

This section presents the results of the study by each hypothesis and its corresponding variable. The fluency variable, the decoding variable, and the comprehension variable are analyzed.

Test for Hypothesis 1

Hypothesis 1: An instructional procedure that employs a culturally appropriate behavioral requisite facilitates the reading rate of students within that culture.

Results yielded a significant main effect for fluency, \( F(1,96) = 291.19, p<.05 \), with post-test fluency scores significantly higher than pre-test scores. Other main effects cannot be interpreted because of insignificance. The simple effects showed a significant interaction for fluency x condition x school, \( F(1,96) = 8.64, p<.05 \), and a significant interaction for fluency x school x teacher, \( F(1,96) = 5.02, p<.05 \). The means and standard deviations for each variable are reported in Table 1.

An independent sample t test was used to further explain where the differences lie between the fluency x condition x school interaction. In the t test, fluency pretest to posttest gain scores were used as the fluency measure, thereby condensing the interaction to two variables, condition x school. Results yielded a significantly higher gain score for the rap group at Lentin than the rap group at Lakeview, \( t(45) = 2.69, p<.05 \). Results also showed that the rap group at Lentin had a significantly higher gain score than the text group at that same school, \( t(58) = 2.48, p<.05 \). These results indicate that the rap condition had more influence on fluency gains than the text condition at the Lentin school, supporting hypothesis one, a culturally appropriate behavioral requisite facilitates the reading rate of students within that culture at the Lentin school.

Test for Hypothesis 2

Hypothesis 2: An instructional procedure that employs a culturally appropriate behavioral requisite facilitates the acquisition of decoding skills of students within that culture.

Results yielded a significant main effect for decoding, \( F(1,96) = 80.29, p<.05 \), with post-test decoding scores significantly higher (\( M=73.87, SD=35.42 \)) than pre-test scores (\( M=50.17, SD=29.41 \)). Students decoding skills improved between the first and second test administration regardless of type of instruction. There was no evidence to support hypothesis two since no significant differences were found between the rap and text condition in relation to decoding skills.

Test for Hypothesis 3

Hypothesis 3: An instructional procedure that employs a culturally appropriate behavioral requisite facilitates the acquisition of comprehension skills of students within that culture.

Results yielded a significant main effect for comprehension, \( F(2,97) = 8.67, p<.05 \), with post-test comprehension scores being significantly higher than pre-test scores. Other main effects cannot be interpreted because of insignificance. The simple effects showed a significant interaction for comprehension x condition, \( F(2,97) = 25.48, p<.05 \), and a significant interaction for comprehension x condition x teacher, \( F(2,97) = 4.81, p<.05 \). Table 2 shows the means and standard deviations for each variable.

Figure 1 shows further analysis of the comprehension x condition interaction over time. In the Week 1 comprehension test, the rap group scored significantly higher (\( M=3.55, SD=61 \)) than the text group (\( M=2.45, SD=76 \)). In the comprehension test at the end of week 4, the text group scored a little higher (\( M=3.38, SD=75 \)) than the rap group (\( M=3.16, SD=69 \)). In the final test administration, the rap group scored slightly higher (\( M=3.41, SD=76 \)) than the text group (\( M=3.36, SD=86 \)). These results showed that the rap condition began significantly higher but
then the scores evened out as time progressed. The results are disordinal since the scores depend on the week of the test administration. These results support hypothesis three, an instructional procedure that employs a culturally appropriate behavioral requisite initially facilitates the acquisition of comprehension skills of students within that culture, but the effects are not sustained over time.

Results from an independent sample t test used to further explain where the differences occurred between the comprehension x condition x teacher interaction. In the t test, comprehension pretest to posttest gain scores were used as the comprehension measure, thereby condensing the interaction to two variables, condition x teacher. Results yielded a significantly higher gain score for Teacher A’s text group than the rap group, \( t(53) = 3.42, p<.05 \). Results also revealed a significantly higher gain score for Teacher B’s text group than the rap group, \( t(40)= 5.06, p<.05 \). These results indicate that both teachers had higher gain scores with the text condition than the rap condition.

**Conclusions**

The fluency results showed that rap group had higher fluency scores at the Lentin school than at Lakeview. Lentin used an additional biweekly reading program (Voyager Passport, 2004) to improve their students’ reading fluency levels. No additional fluency program was used at Lakeview. This suggests that the length of time of fluency instruction was a factor. My study only lasted 8 weeks with approximately 4 hours of actual implementation time. Lentin students did significantly better with the rap program than Lakeview students because the Lentin students had more than the 4 hours of fluency instruction provided within my study. These results are similar to the results found with the program I based my lesson upon (FDL) since that program lasted for 7 months with a total of 35 hours of instruction (Rasinski et al., 1994).

The fluency results also showed that the rap group did better than the text group at the Lentin school. This can be attributed to the culturally relative curriculum that was implemented. The rap text was more culturally familiar to the African American students and hence they did better with it on fluency measures than when using a traditional text that had no cultural component. Findings are similar to what other researchers have found in regards to using culturally appropriate curriculum in the classroom (Au, 1980; Ladson-Billings, 1995; Yasin, 1997). The closer ones culture is to the material being used the better it is for the students.

There was no significant difference found in decoding scores between the text and the rap group. This implies that repeated reading of a text, whether culturally significant or not, does not help students decode unknown words. This finding contradicts with what Herman (1985) found; repeated readings of a text develop students’ word recognition skills. Herman’s study was done with only 8 students and, therefore, the generalizability is limited, whereas my study was conducted with 105 students. Conversely, these results coincide with other researchers who find that repeated reading of a text only helps with fluency skills (Allington, 1983; Rasinski, 1994).

The comprehension scores showed significantly higher results at the beginning of the study for students in the rap group but the results were not sustained over time. This result shows that motivation is an important factor in reading instruction. Similarly found by Wigfield and Guthrie (1997), intrinsic motivation can be increased by the material used in instruction. A question remains as to why the results were not sustained over time. An item-analysis of the questions revealed that the inference questions were missed most frequently. This indicates that there is an affect of the material itself on comprehension. Regardless of the instructional format (culturally appropriate or not), inferences take more thinking skills.
In comprehension, both teachers showed higher gain scores with the text group than the rap group. This may be due to the fact that both teachers were more comfortable in teaching a text that was more familiar. Since neither teacher was African American, a question is raised as to what if the study had been taught by African American researchers. This study has confirmed the importance of using culturally appropriate materials with students, yet there still needs to be more research on the interaction between teaching methods, materials, and the students.

**References**


**Table 1**

*Means (Standard Deviations) for Fluency Measures*

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<th>Variable</th>
<th>Pretest</th>
<th>Posttest</th>
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</thead>
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<tr>
<td>Overview</td>
<td>44.67 (28.86)</td>
<td>71.38 (35.23)</td>
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<tr>
<td>Rap</td>
<td>52.77 (29.32)</td>
<td>81.72 (34.94)</td>
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<td>Text</td>
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<td>62.86 (33.42)</td>
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<tr>
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<td>64.21 (39.75)</td>
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<tr>
<td>Lentin</td>
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<td>61.88 (28.58)</td>
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<tr>
<td>Lakeview</td>
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<td>67.98 (35.84)</td>
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<tr>
<td>Teacher B</td>
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<td>86.27 (27.80)</td>
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<td>73.88 (34.87)</td>
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<tr>
<td>Teacher A</td>
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<td>82.76 (33.88)</td>
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<tr>
<td>Teacher B</td>
<td>36.62 (30.12)</td>
<td>62.27 (33.28)</td>
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Table 2

Means (Standard Deviations) for Comprehension Measures

<table>
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<th>Posttest</th>
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<td>3.38 (.81)</td>
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<td>3.28 (.84)</td>
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<td>3.38 (.75)</td>
<td>3.36 (.86)</td>
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<td>Teacher A</td>
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<td>3.39 (.84)</td>
<td>3.03 (.98)</td>
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<td>Teacher B</td>
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<td>3.36 (.64)</td>
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Figure 1. Comprehension Means by Test Administration