Research Report on the Steel Band Program at Central School
Prepared for the Red Clay Consolidated School District
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Background
Students are placed in the intensive learning center at Central School to best meet their academic and emotional needs. Current research indicates that training in the arts might improve the general thinking skills of children and adults and serve as a motivating factor toward school attendance and achievement. In partnership with the University of Delaware, Professor Harvey Price provided two 45-minute classes one morning each week for the 2008-09 school year at the Central School. Sue Peo, Red Clay instrumental music teacher, helped to facilitate the classes.

Research Purpose
The purpose of this research was to discern if the implementation of a steel band curriculum at the Central School had an impact on middle school students’ school attendance, behavior, or grades.

Human Subjects
Approval for Research on Human Subjects was granted by the University of Delaware and the Red Clay Consolidated School District.

Participants
Participants were 14 students in grades 6, 7, and 8 who voluntarily signed up for the steel band class and 15 students in grades 6, 7, and 8 who served as the control group.

Data Collection
Steel band participants’ final grades, attendance, and behavior data for the academic years of 2008 and 2009 were gathered from DSC records. Control group data were supplied by RCCSD. The instructors and students provided written journal entries documenting their experience with teaching and learning steel pan.
Central School Steel Band

**Data Analysis and Results**

Participants’ grades, attendance, and behavior data were collected from academic years 2008 and 2009. It was determined that due to the small number of participants, performing typical statistical tests would be inappropriate--to do so would likely result in a Type I or Type II error. Therefore, steel drum and control group data were tallied separately for each category. The tallied data were compared within each participant group to determine changes from 2008 and 2009. Differences between the steel band and the control group data were calculated (see Table 1). Student journals were examined for trends and anecdotal evidence.

<table>
<thead>
<tr>
<th>Table 1: Comparison of Steel Band Group to Control Group</th>
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<tbody>
<tr>
<td><strong>Steel Band</strong> 2008</td>
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<tr>
<td>Absences</td>
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<td>Member Days</td>
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<td>GPA</td>
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*One student accounted for 149 days in 2008. **Six 2008 GPAs were unaccounted for. ***Five 2008 GPAs were unaccounted for.

When examining samples of the steel band journals and teacher comments, the following remarks were found in the student journal entries:

- “I love Steel drums a lot.”
- “I relly like steel Drums and I will ceep the lessons in my hed no mater what ☺☺”
- “I like to play steel drums!”
- “I like the steel drum because it better”
- “I am proud to do steel drum is cool and I learn how to play music.”
Teachers remarked:

- “My students appeared to be so enthusiastic about the Steel Drums. Once I saw the concert I understand how they felt.”
- “Being a part of this class has made students feel special and talented! A “sense of belonging” & being involved in something so special has had a positive impact on students’ self confidence.”

Among the concepts, skills, and vocabulary learned by the students were: note names, note values, names of songs, chords, Roman numerals to signify harmonic function, step-scale, and skip-chord.

**Discussion**

Steel band participants attended school a total of 19 more days in 2009 than in 2008, accounting for 12 more days in school than the control group for 2009. Member data were skewed as one steel band participant accounted for 149 days. With this outlier discarded, steel band participants had 12 more member days than in 2009, two more days than the control group.

Steel band participants had more behavioral incidents in 2009 than 2008 with one more incident than the control group. However, participants in steel band and the control group had one less ISS in 2009 than 2008. Both groups had an increase in number of OSS: steel band participants had 2 more OSS days than the control group. Both groups increased in the amount of OSS days. Steel drum participants had nine more OSS days in 2009 versus 2008, a total of two more OSS days than the control group. Steel drum participants had an increase of .11 in GPA, whereas the control group GPA decreased by .16. The difference in GPA between the two groups was -.05.

**Interpretation and Recommendations**

Results of this study must be interpreted with caution due to the small number of participants in the steel band class and the control group. In reference to the research purpose of this study it was found that both groups had a slight increase in behavioral issues. The most noteworthy findings were that the steel band group had an increase in both school attendance and GPA.

Recommendations from this study are that the variables of attendance, GPA, and behavior continued to be tracked for steel drum participants in the 2009-2010 school year. Assessment data on the students’ musical achievement would provide another lens into the conceptual
knowledge and skills that students’ may be acquiring in the program. Systematic gathering of qualitative data regarding (a) students’ perceptions of their participation in the program and (b) teachers, administrators, and caregivers perceptions of the value of the program will provide a complete picture on the possible effects of participation in steel band at the Central School.