



## **Big Bang = Big Change Evaluation Report – 2014-15**

### EXECUTIVE SUMMARY

A partnership was developed, pairing a newly consolidated school, Morgan Maxwell K-8, with Odaiko Sonora, a southern Arizona taiko group, and Opening Minds through the Arts (OMA), an arts integration program. This is the second year of the partnership. The goal was to provide weekly taiko instruction to 6<sup>th</sup> and 7<sup>th</sup> grade students (last year's 5<sup>th</sup> and 6<sup>th</sup> grade students) at Morgan Maxwell. In addition to taiko instruction, students also received instruction in Orff percussion. Mid-year, two classes at Cavett were added to receive taiko instruction weekly.

Attendance was measured on Tuesdays and Fridays at Morgan Maxwell and Tuesdays and Thursdays at Cavett. Students were asked to fill out surveys related to building connections in class, self-esteem and self-discipline/perseverance. Because of the lack of involvement by classroom teachers, only one sixth grade teacher at Morgan Maxwell was interviewed (she had been involved in the program last year), as well as the lead taiko teacher.

Morgan Maxwell showed the same attendance rate for Tuesday and Friday, with Friday being the day students attended taiko lessons. When comparing Morgan Maxwell with the Control School, Morgan Maxwell showed a higher attendance rate on Friday. Cavett attendance, only gathered for less than one semester, showed that Thursday attendance was not better than Tuesday's attendance, with Tuesday showing better attendance.

Morgan Maxwell students' responses to the three survey questions showed above average ratings among 6<sup>th</sup> grade students, and average and slightly below average ratings for 7<sup>th</sup> grade students. When 6<sup>th</sup> grade responses were broken out by classroom, the students whose teacher made more connections with the taiko lessons showed a higher average rating for all three statements. Cavett responses showed above average ratings. Individual student comments related to the statements clarify their ratings.

Results from the interview with the 6<sup>th</sup> grade teacher indicated that students used their skills learned in taiko to help them during other class lessons; in particular, during testing time and collaboration time.

Results from the interview with the lead taiko teacher pointed out several positive aspects for the students, but also pointed out the difficulty related to making connections with the classroom teacher and standards, given the absence of the teacher during the taiko lessons.

**Differences in methodology and results that existed between this year's program and last year's are described in the final section of the report.**

## INTRODUCTION

### Background Information

This is the second year of the partnership with Odaiko Sonora, a southern Arizona taiko group; Morgan Maxwell K-8 School in Tucson Unified School District, and Opening Minds through the Arts (OMA), a nationally recognized arts integration program, for a continuation of a collaborative arts project that integrated ancient Japanese drumming with the tested curriculum. The Odaiko Sonora taiko drumming group provided weekly instruction to all 6<sup>th</sup> and 7<sup>th</sup> grade students in the art of ancient Japanese drumming. These were the same students who received taiko instruction last year as 5<sup>th</sup> and 6<sup>th</sup> grade students. These students also received Orff percussion instruction weekly.

The project also provided taiko instruction at Cavett Elementary School for two classes, a 4/5 combination class, and a 5<sup>th</sup> grade class. This instruction began mid-year, due to its approved integration with the original grant.

### Differences from the 2013-14 and 2014-15 school years:

1. Taiko sessions were offered during times when teachers had meetings/planning, so teachers did not attend sessions. There was no collaboration between teachers and taiko artists with regard to lessons and standards addressed.
2. There was a delay receiving the grant money, causing a delay in start times for working with students. This contributed to the inability to hire and keep a visual artist, which was an original component of the grant proposal.
3. The delivery of the program has been inconsistent, due to purchasing/finance problems and the payment of the lead taiko artist.
4. The program at Cavett Elementary was added late, not until the second semester.
5. Testing data (ATI) is being gathered by TUSD differently this year. Last year, the same standards were tested each quarter, so that any standards addressed by the taiko lessons would be measured for growth throughout the year. This year, only the standards to be taught each quarter are tested that quarter, so there is no measure of growth throughout the year. With the lack of collaboration with teachers, the taiko team did not know which standards to address during each semester (if there even were standards conducive to the taiko lessons that particular quarter), so analysis of standards comparisons between Morgan Maxwell and the control school were not possible.

### The Intent of the Study

The intent of this study is to determine how the continued presence of weekly taiko lessons and new Orff instruction impacted the program at Morgan Maxwell and how weekly taiko lessons impacted Cavett students. This year's study looked at attendance data as well as gathering data from students through a student survey and interviewing two teachers involved in the project, the taiko lead teacher and one of the classroom teachers.

## Theoretical Framework

OMA has a long history of providing high quality arts integration instruction, developing collaborative teams and building strong communities, with a record of supporting and improving student achievement. Odaiko Sonora's teaching artists have joined the OMA teaching artist team recently, and in that short time, they have had successful and highly enjoyable experiences introducing taiko drumming to students to both middle and elementary school children. Given that the taiko drumming team has provided arts integrated instruction, it is believed that this program will also have an impact on student achievement and community building.

This belief is based on sound research results. *Champions of Change*, the landmark report on arts education, indicates that music instruction helps the students that need it the most, and not just in the area of math. "Students of lower socioeconomic status gain as much or more from arts instruction than those of higher socioeconomic status," (Fiske, *Champions of Change*) and "students (of lower SES) who took music increased their math scores significantly . . . but just as important, reading, history, geography and even social skills soared by 40 percent." (Catterall et al., *Champions of Change* 1999). In one of the many research examples, a test group that received music instruction as well as math instruction scored 15 percent higher than the comparison group that received only math instruction. (Graziano, A., Peterson, M., and Shaw, G. (1999, March, *Neurological Research*).

## Structure of the paper

Following a description of the study methodology, the paper will present results in the following order:

- ♪ Attendance data results, comparing Tuesday and Friday rates at Morgan Maxwell as well as comparing rates with a control school.
- ♪ Attendance data results, comparing Tuesday and Thursday rates at Cavett.
- ♪ Results of a survey administered to students at the end of the year, asking them about their perception regarding the impact of taiko instruction on building connections with other students, developing self-esteem and self-discipline, and developing perseverance.
- ♪ A summary of interviews with the taiko lead teacher and a 6<sup>th</sup> grade classroom teacher from Morgan Maxwell, about their perception of the impact of the project on the students as well as how the program went this year, given the differences from last year's model.

## METHODOLOGY

The Big Bang = Big Change program was believed to have had impact in several ways. Because of the differences in test data collection this year stated above, achievement data will not be reviewed. Attendance rates are thought to be affected, with students more inclined to attend school on days when there were taiko lessons. The program is believed to impact the development of community in the classroom, as well as student self-esteem and self-discipline. These aspects were measured in three ways:

- ❖ Attendance rates were compared within Morgan Maxwell, comparing rates on Tuesdays versus Friday (taiko lesson day), in addition to comparing rates with the

control school. Attendance rates were also compared within Cavett, comparing rates on Tuesdays versus Thursdays (taiko lesson day).

- ❖ Because teachers were not in the taiko sessions with their students at Morgan Maxwell, no surveys were given to them. Instead, one of the teachers was interviewed about how she felt taiko had impacted her students. This teacher was chosen because she was the only teacher who had the program last year, and she attempted to make connections with the taiko lessons in the classroom and gave students opportunities to practice. This was unique among the four teachers involved. An interview was also conducted with the lead taiko teacher, to find out how the differences mentioned above impacted the program this year as compared to last year.
- ❖ Students were given a survey in May, asking them for their ratings on statements about making connections with other students in the class, possible increases in self-esteem & self-discipline and perseverance.

## EVALUATION RESULTS

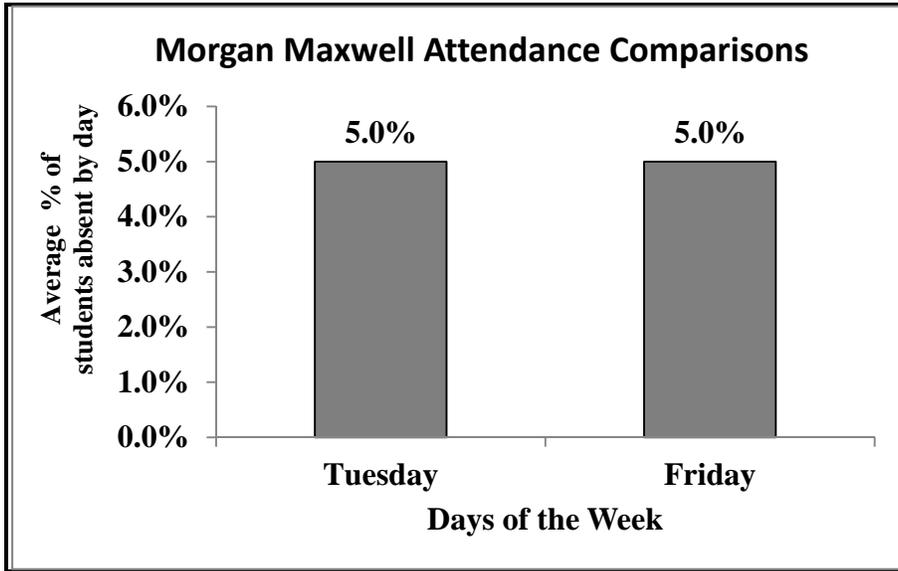
### STUDENT ATTENDANCE DATA

Data were collected for all 6<sup>th</sup> and 7<sup>th</sup> grade students at both Morgan Maxwell and the control school. Comparisons were made between Tuesday and Friday attendance percents within Morgan Maxwell. Comparisons were also made between the two schools. Table 1 shows the average percent of students absent at Morgan Maxwell on the two days and Table 2 shows the average percent of students absent each day at each school. Table 3 shows the average number of students absent on Tuesdays and Thursdays at Cavett Elementary.

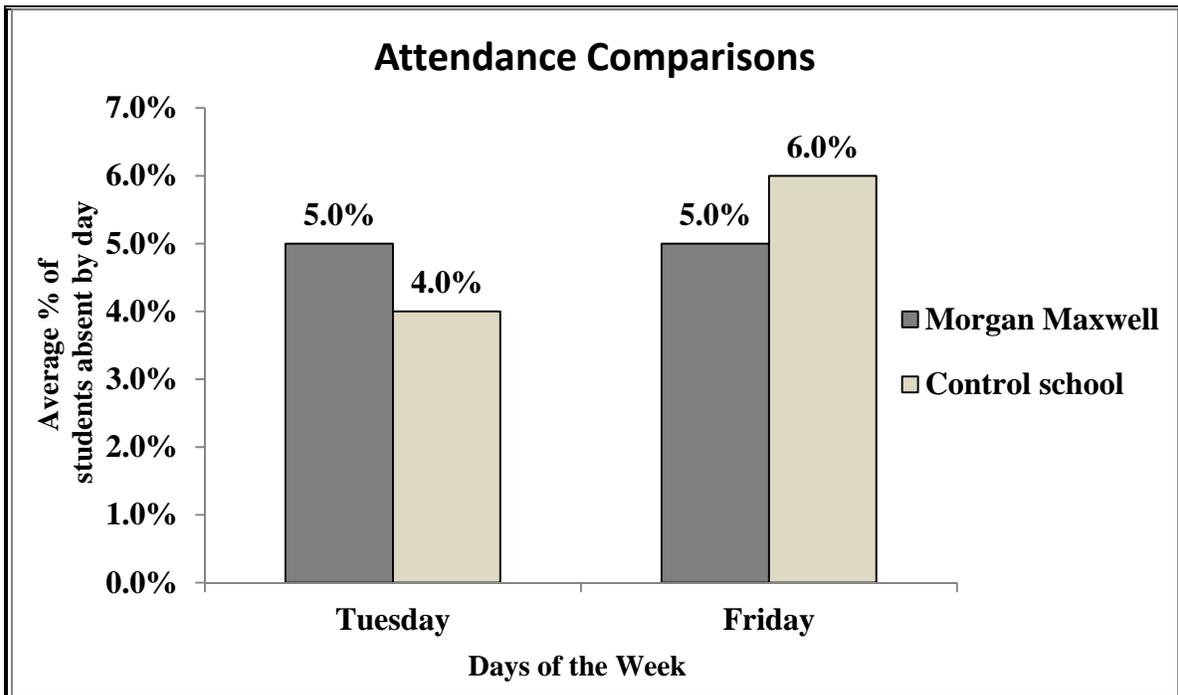
One interesting result was the fact that attendance was the same on Tuesdays and Fridays at Morgan Maxwell. While Friday was taiko day, it is also usually a high absentee day of the week in most schools. **The fact that the rate was the same both days could suggest that having taiko on Friday was a draw, keeping students in school.** Results comparing Morgan Maxwell and the control school were mixed. Absences were higher at Morgan Maxwell on Tuesdays, as compared to the control school, yet lower on Friday. This supports the idea that taiko class motivates students to come to school.

Attendance data for Cavett showed no decrease in attendance on taiko days (Thursday) as compared to Tuesday attendance. The reverse was found to be true, with Tuesday absences less than Thursday absence. No explanation can be found for these results.

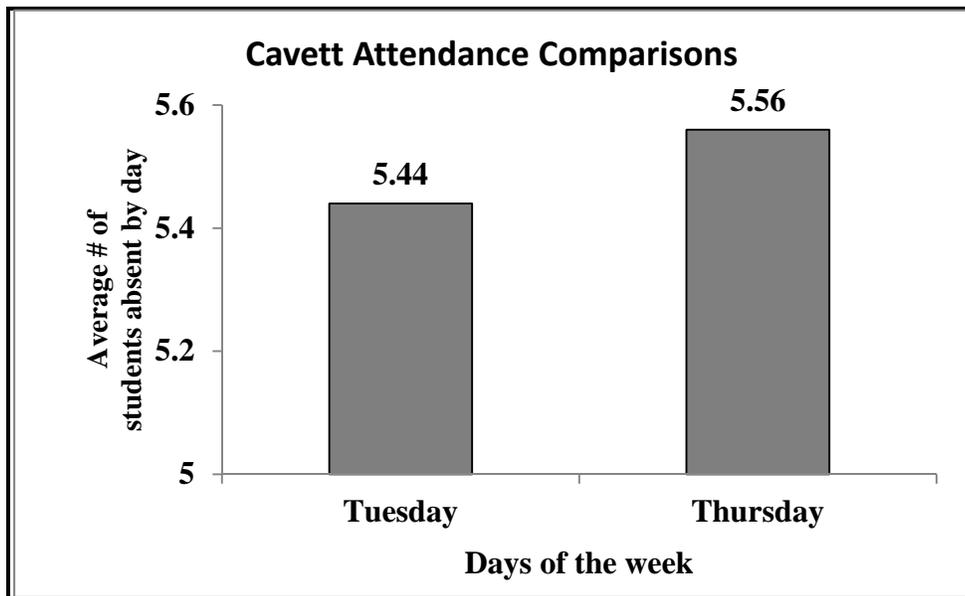
**TABLE 1: Morgan Maxwell Attendance Comparisons**



**TABLE 2: Morgan Maxwell and Control School Attendance Comparisons**



**TABLE 2:** Cavett Daily Attendance Comparisons



#### STUDENT FEEDBACK

Students were given a survey in May, asking them to indicate their agreement with three statements; “*My experience with the taiko sensei has helped me build connections with the other students in my classroom*”, “*My experience working with the taiko sensei helped me gain a sense of pride and self-discipline*”, and “*I learned better how to stick with something until I’ve learned it, because of my work with the taiko sensei.*” The scale was 1 to 5, with 1=“not at all” to 5=“to a great extent.” (see Appendix A) Average ratings are shown in Tables 3, 4, and 5.

Table 3 shows average ratings for the 6<sup>th</sup> and 7<sup>th</sup> graders in Morgan Maxwell. Sixth grade students gave considerably higher ratings as compared to the 7<sup>th</sup> graders, for all three statements. Table 4 breaks out the two 6<sup>th</sup> grade classes, and, while both classes individually had higher ratings than the 7<sup>th</sup> graders, **Class A showed considerably higher ratings than Class B. One explanation of this difference is that Class A had the teacher familiar with the program from last year and who supported taiko instruction by discussing their lessons with the students and by allowing them opportunities to practice their songs.**

The ratings averages for Cavett show higher ratings for the second two statements. One possible explanation for the lower rating for the statement pertaining to building connection with other students could be that the program started during the second semester and students had already made connections with their classmates.

**Table 3:** Morgan Maxwell Survey Results – 6<sup>th</sup> and 7<sup>th</sup> grade

	<b>average</b>	
	<b>{1="not at all" to 5="to a great extent"}</b>	
	<b>6<sup>th</sup></b>	<b>7<sup>th</sup></b>
My experience with the taiko sensei has helped me build connections with the other students in my classroom.	<b>4.16</b>	<b>2.94</b>
My experience working with the taiko sensei helped me gain a sense of pride and self-discipline.	<b>4.12</b>	<b>3.12</b>
I learned better how to stick with something until I've learned it, because of my work with the taiko sensei.	<b>4.18</b>	<b>3.47</b>

**Table 4:** Morgan Maxwell Survey Results – 6<sup>th</sup> grade Class A and Class B

	<b>average</b>	
	<b>{1="not at all" to 5="to a great extent"}</b>	
	<b>A</b>	<b>B</b>
My experience with the taiko sensei has helped me build connections with the other students in my classroom.	<b>4.58</b>	<b>3.77</b>
My experience working with the taiko sensei helped me gain a sense of pride and self-discipline.	<b>4.38</b>	<b>3.88</b>
I learned better how to stick with something until I've learned it, because of my work with the taiko sensei.	<b>4.71</b>	<b>3.69</b>

**Table 5:** Cavett Survey Results – 4<sup>th</sup>/5<sup>th</sup> and 5<sup>th</sup> grade classrooms

	<b>average</b>
	<b>{1="not at all" to 5="to a great extent"}</b>
My experience with the taiko sensei has helped me build connections with the other students in my classroom.	<b>3.98</b>
My experience working with the taiko sensei helped me gain a sense of pride and self-discipline.	<b>4.35</b>
I learned better how to stick with something until I've learned it, because of my work with the taiko sensei.	<b>4.84</b>

Student comments related to each of the statements on the survey included the following:

*“My experience with the taiko sensei has helped me build connections with the other students in my classroom.”*

- ♪ It helped me because we all had to depend on each other and know what each was playing.
- ♪ My experience with the taiko sensei has helped me build teamwork with the other students in my classroom.
- ♪ We had to all depend on each other to play the song and play it right.
- ♪ Because now I can trust my classmates and I learned how they really are. It was just amazing.
- ♪ Yes because the sensei made me laugh, and I was full of joy to build connections with other students.
- ♪ I liked this class, it is very good for our social skills and so we could be more cooperative. Also, the taiko lessons were great this school year. I hope the kids next year will have as much fun as we had this year.

*“My experience working with the taiko sensei helped me gain a sense of pride and self-discipline.”*

- ♪ My experience working with taiko sensei helped me gain better discipline, when the teacher gives out directions I’m able to follow them.
- ♪ I learned that people would appreciate me if I appreciate them.
- ♪ Because standing on stage takes a whole lot of confidence.
- ♪ It helped me get better at performing on a stage while lots of people listen. I used to be bad at that.

*“I learned better how to stick with something until I’ve learned it, because of my work with the taiko sensei”*

- ♪ Because at first I didn’t like taiko but now that I stuck to it I like it a lot and I think I will start to stick with more stuff.
- ♪ I would always give up but our sensei were just awesome! They always motivate the students.
- ♪ I did learn how to stick with something in taiko because at first I did not know the song and then the sensei repeated it and repeated it and I learned it.
- ♪ Yes, this class heightened my appreciation of music and made me more determined to complete my task.
- ♪ We work on our songs for a long time until we are wonderful. Which helps me stick to something until I learn it.
- ♪ I learned to stick with something until I felt confident doing it.

*“Please tell us any additional thoughts you have about your experience this year and what you learned:”*

- ♪ I think taiko this year was great. We learned many things like a new song and how to play two new instruments. Hamner and Stansbury sensei were both great teachers.
- ♪ What I learned was to play a more professional song and I really liked it. It was the perfect year of my life learning taiko.
- ♪ This year I thought taiko was great, it helped me build teamwork, self-discipline, and pride to perform taiko. I liked how the teachers taught us to play the drums. And how to play notes on the drums. And I like how the teachers were nice to us.
- ♪ Doing taiko helps me reduce stress and helps me focus.
- ♪ Taiko has helped me by focusing on my test and staying concentrated.
- ♪ Taiko has helped me focus on a lot of different things. I just play our song in my head.

## INTERVIEWS

### Interview with Morgan Maxwell Sixth Grade Teacher

An interview was conducted with one of the two 6<sup>th</sup> grade teachers at Morgan Maxwell. Last year (year one of the program at Morgan Maxwell) she had been the only teacher to actively participate in the taiko lessons; playing the drums and co-teaching with the taiko teachers to help integrate the math curriculum in the taiko lessons.

This year she was the only one to read and respond emails from the taiko lead teacher. She gave students the opportunity to practice their songs with finger drumming. She noticed that students sometimes would practice on their own, when there was some downtime between lessons. Prior to being interviewed, she conducted her own interviews with the students, to find out how they felt about the taiko classes. The results of that conversation follow:

- 1. Several students said taiko helps them focus better, both during taiko class and also during other classroom lessons.**
- 2. One student said she gets nervous about an upcoming test, so she focuses on the taiko song in her head and that helps calm her down.**
3. Some students practice their taiko songs with their fingers on their desks when there's any downtime. They said that this calms them down and reduces stress.
4. One student said that taiko is an avenue for alleviating stress.
5. Another student said it helps him keep his temper (because testing makes him angry) and keeps him from rushing in the test.
- 6. Others said it taught them how to work well together, because of some of the songs they play require teamwork. This concept of team carries over into other classes where they are asked to do team projects. They have learned to be dependable for their teammates because they can literally "hear" when someone isn't doing their job.**

**7. One athletic student said taiko makes him feel famous; that he can achieve anything.**

Interview with Lead Taiko Teacher

The lead teacher talked about what worked with the program and what problems existed. Several aspects helped the program be successful this year.

1. One is the continuity provided because the same students were involved for the second year. **This allowed the taiko teachers to challenge the students with more complex songs and really allow them to grow as players.**
2. Another positive aspect was the **addition of Orff instruction** once a week, added to the taiko instruction once a week. **The students developed much better musical skills- a better sense of pulse, the ability to read musical notation (note duration and pitches on the treble clef), and better soloing in their taiko songs.**
3. In one 7th grade class, the students were taught a song that had three distinct rhythmic voices. They covered 2 in class, but didn't have time to get to the 3rd. Eight students volunteered to come in during their lunch recess on Tuesdays and Fridays for the last 4 weeks of class to learn this 3rd rhythm part! They played it beautifully in their performances.
4. When the students performed for the rest of the school, one 1st grade class was so impressed they wrote thank you letters to the older kids. The last day of taiko class, the older kids got to read these letters, and it was a great affirmation for many of them.

Some aspects of the program created problems. The primary problem at Morgan Maxwell was the fact that this year, teachers were not required to be in attendance during the taiko or Orff lessons. The schedule was established to provide teachers with planning time, away from their students. This was different from last year, when teachers were all present in the taiko classroom. This created several issues:

1. At Morgan Maxwell, **not having the teachers in the room made it nearly impossible to do integration.** There was **a lack of continuity and connection with classroom instruction.** Because of scheduling difficulties, the taiko teachers and classroom teachers seldom had a chance to talk. Only one teacher consistently read and responded to email communication. Taiko lessons struggled to make connections with curricular standards being taught in the regular classroom. By mid-year, **any connection to current standards became impossible.** Because of this lack of communication with classroom teachers, **the taiko classes became disconnected from the rest of the school.**
2. Because teachers did not attend the taiko sessions, **they just sent their students to the class, rather than escort them,** which had been requested. This became an issue during the second semester, as students got older and were testing boundaries more. **Students became disruptive on their way to taiko (sometimes even ditching), and regaining control of their behavior during taiko took valuable instructional time.** Classroom management was difficult because the classroom teacher was not present. Students (especially the 7<sup>th</sup> graders) felt there were no real repercussions for acting out, given the disconnect with the rest of the school.
3. In the spring, in response to low math scores, **individual students were pulled out of taiko for remedial work for several weeks.** Different students were pulled out on different weeks, which made presenting a **comprehensive integrated curriculum next to impossible.**

4. The Cavett program began mid-year. While the teachers were physically in the taiko classroom, Cavett suffered from lack of communication. No one there ever replied to an email, and it did not seem that they had looked at lesson plans in advance of the classes. So, the students loved taiko and learned some taiko and, hopefully, got some integration benefits, **but it wasn't what it could have been if the teachers had engaged more, or if there had been time to guide them by the hand through what OMA is supposed to be.**
5. Two Cavett classes were involved with taiko. Discipline was fine with the class that had a strong teacher, but the other class had a long-term substitute who had marginal control of the class. When the regular teacher returned, the situation with some of the students got worse, causing some, for the first time ever, to be permanently removed from taiko.

**In summary, the close collaboration and support of the teacher was largely missing this year in both schools. As a result, the program suffered, significantly weakening the OMA model and diminishing the power of the program to have an impact of student success not only in taiko but also in other subject areas.**

## DISCUSSION, LIMITATIONS, AND COMPARISONS

### Discussion

The evaluation focus this year shifted from that of the 2013-14 school year, largely because of two differences. First, classroom teachers at Morgan Maxwell did not attend the taiko lessons and did not collaborate with the taiko teachers to address specific standards. Second, the monitoring testing the district uses was structured differently, not allowing for any measure of growth in particular standards throughout the year. Therefore, the focus for evaluation purposes was attendance, student surveys, and teacher interviews.

The results show a positive impact on Friday attendance at Morgan Maxwell, with Morgan Maxwell students attending at a higher percentage than the control school. Morgan Maxwell 6<sup>th</sup> grade and Cavett 4<sup>th</sup> and 5<sup>th</sup> grade student survey responses to the three survey questions showed above average ratings. At Morgan Maxwell, there were slightly below average ratings for 7<sup>th</sup> grade students. Between the two 6<sup>th</sup> grade classes at Morgan Maxwell, the students whose teacher made more connections with the taiko lessons showed a higher average rating for all three statements. **These findings show the power of collaboration, even at a minimal level, as well as the power of having the classroom teacher “buy in” to what the students are doing.** When the classroom teacher shows in some way that what their students are doing is important, students recognize that it is important also and behave accordingly. Cavett responses showed above average ratings, showing that even though they were new to the program, they recognized some of the benefits.

Results from the interview with the 6<sup>th</sup> grade teacher indicated that students used their skills learned in taiko to help them during other class lessons, in particular, during testing time and collaboration time. **These findings also reflect the power of the classroom teacher in acknowledging the importance of the taiko lessons.**

Results from the interview with the lead taiko teacher pointed out several positive aspects for the students, but also pointed out the difficulty making connections with the classroom teacher and standards, given the absence of the teacher during the taiko lessons. **This collaboration is instrumental in focusing on important curricular standards and also with classroom**

**management. The classroom teacher is vital to the success of the true intent of the program.**

### Limitations

There are limitations to generalizing these results, especially with regard to the attendance results. The positive impact on attendance was consistent with last year's results, but no attempt was made to find statistical significance. Six teachers were involved in the program, 4 at Morgan Maxwell and two at Cavett. The program at Cavett began after the second semester had begun, and those teachers, while present and supportive, were still learning about the purpose and structure of arts integration. At Morgan Maxwell, three of the teachers (both 7<sup>th</sup> grade and one 6<sup>th</sup> grade teacher) were new to the program, and because **they were not required to attend, never had the opportunity to become fully engaged in understanding the program.** Student responses reflect this lack of knowledge and would possibly be different with more teacher involvement.

### Comparisons

As stated above, the methodology as well as the results differed from those of the first year of the program 2013-14. Last year, attendance rates increased on Thursdays as compared to Tuesdays and to a greater degree than the control school. This year's attendance data just showed an increase rate comparing Friday attendance at Morgan Maxwell and the control school, but no increase from Tuesday to Friday.

Because of the lack of teacher involvement, no attempt was made this year to survey them and assess their understanding of the program integration and benefit to their students. While students were surveyed this year, they did not provide the extensive written responses about taiko that were available last year, due to more classroom involvement.

**Most importantly, given the power of OMA when implemented correctly with strong teacher involvement and collaboration, test scores on state standards were viewed differently.** Last year, test scores were analyzed, showing an increase in the number of students achieving certain standards, with a greater increase for Morgan Maxwell versus the control school. Test scores were not analyzed this year due to two events:

- **Testing was conducted differently this year**, not allowing for clear measurement of growth.
- However, a more significant reason for not looking at measures of reading or math standards was **the lack of classroom teacher involvement in the lessons and the lack of collaboration. Without that involvement and collaboration, addressing state standards in a meaningful way was not possible.**

## Appendix A: Student Feedback Form – Morgan Maxwell and Cavett

Grade level: \_\_\_\_\_

We hope you have enjoyed working with Hamner Sensei and Stansbury Sensei this year. We would like to get your feedback about some aspects of the program. Please take a minute to indicate your agreement with each statement on a scale of 1 to 5, with 1 = “not at all” and 5 = “to a great extent.”

**{1=“not at all” to 5=“to a great extent”}**

My experience with the taiko sensei has helped me build connections with the other students in my classroom.	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Comments:					
My experience working with the taiko sensei helped me gain a sense of pride and self-discipline.	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Comments:					
I learned better how to stick with something until I’ve learned it, because of my work with the taiko sensei.	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
Comments:					

Please tell us any additional thoughts you have about your experience this year and what you learned:

**Thank you for your feedback!**