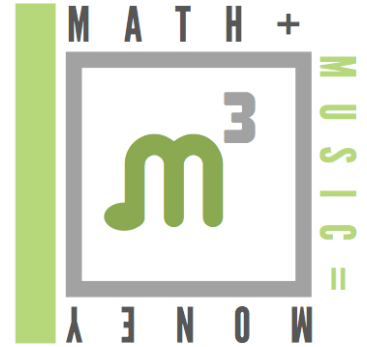**EVALUATION OF THE MATH+MUSIC=MONEY PROGRAM**

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Participating Partners: Rochester Hillside Family Agencies of Rochester New York and Creative Alliance of Baltimore, MD

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## I. EXECUTIVE SUMMARY

Kariz Kids Youth Enrichment Services (KKYES) is a provider of school-based extracurricular programming in the Baltimore, Maryland, Washington DC Metropolitan and Rochester, New York areas.   KKYES's driving vision is to unite educators, music producers, song writers, musicians and recording engineers committed to positively impacting their community and provide a platform for them to transform young minds. In direct response to the growing number of students either at risk of academic failure or entanglement with the justice system, KKYES created the practitioner-led music-focused MATH+MUSIC=MONEY (M+M=M) curriculum. The M+M=M program is designed to expose middle and high school students to careers in the music industry.   The primary mission of the initiative is to bridge the gap between education, arts and business via the creation of youth-oriented skills enrichment activities.   A secondary objective of the program is to identify youths experiencing a turbulent transition to adulthood and offer creative outlets for them to vent and cope. Since the inaugural M+M=M program in 2012, a total of 607 youth have been serviced. During the 2013-2015 academic years, the program was administered to 167 youth, aged 12 to 19.

This report is designed to assist other organizations that might be interested in collaborating and/or supporting future KKYES Out-of-School-Time (OST) programs. Although the data presented represents findings from the Maryland and upper state New York areas, there is evidence to support the need for culturally-competent and developmentally appropriate OST programs for middle and high school age students (especially those serving low-income communities) throughout the country. The report also aims to provide descriptive information on the M+M=M initiative, its target population, patterns of participation, key findings, and discuss the long term sustainability of creative Science Technology Engineering and Math (STEM) /music-integration programs in high school populations.

## II. INTRODUCTION

M+M=M consists of 5 Learning Modules: Music Production, Recording Engineering, Professional Development, Song Writing/Creative Writing, and Financial Literacy

*Percentage of Focus:*
Music Production: 20%
Recording Engineering: 15%
Professional Development: 10%
Financial Literacy: 30%
Creative Writing/Songwriting: 25%

Learning Module 1: Music Production (MP)
Through activities that focus on production, students are given an in-depth look into the elements of a good song as well as the roles/careers that are involved in producing a final music product. Computer software will be utilized to achieve this result. The music production component of the curriculum includes lessons on recording, editing, mixing and song composition. To ensure that students feel connected to finished product, students will be involved in the MP process from selecting the instrumental to writing the song lyrics.

Learning Module 2: Recording Engineering (RE)
Through the RE learning module, students are introduced to several career paths in recording engineering. These include but are not limited to: Acoustic Design, Field Recording, Studio Installation, Live Shows, Mixing Engineer, Studio Management and Video Production. Student engineers are the nucleus of the M+M=M's recording process. It is the recording engineers' responsibility to upload the instrumental audio files into the recording software, ensure that all recording equipment is set up prior to the start of class, perform audio microphone checks, ensure artist comfort, manage the record button and mix the audio to the client's satisfaction. This job also requires the acting student engineer to be detailed oriented, retain information quickly and sometimes work as a creative director while dealing with the client/artist involved in a recording.

Learning Module 3: Professional Development (PD)
M+M=M PD activities are designed to enhance students' understanding of the professional skill sets needed to work in creative industries. A new Lead Scholar (LS) is appointed each session. He or she is responsible for assisting the Lead Instructor with day to day operations. Duties performed by this individual include providing academic and creative assistance to the students. The LS is expected to evaluate their own performance as well as that of his or her peers. This activity empowers students to suggest specific areas of improvement that could enhance the entire group's learning experience. These leadership opportunities become invaluable to students when completing the administrative duties related to producing the final musical product.

Learning Module 4: Financial Literacy
Financial Literacy is a critical component of the business-related aspects of the class.
As part of the M+M=M program, each musical project has a budget. Students earn "fake money" for business expenditures and transactions by correctly responding to Questions Scenarios & Answers (QSAs). This incentive system enables M+M=M participants the authority to buy studio time, beats, graphic design and video production services, and other rendered services needed to complete and release a CD or music project. An acting accountant is selected to assist the class with managing the funds in their account. It is the student engineer's responsibility to keep records of all financial transactions and follow up with clients (students) regarding unpaid debts.

Learning Module 5: Creative Writing (CW) /Song Writing (SW)
M+M=M uses music to build critical thinking skills. The informational/explanatory writing completed as part of the program serves three closely related purposes: to increase readers' knowledge of a subject, to help readers better understand a procedure or process, and to provide readers with an enhanced comprehension of a concept. Students will also be exposed to over 200 terms and vocabulary words. In a recording studio environment it is important that all parties communicate professionally and accurately when referring to technical and creative components.

Song Writing
The creative process can be an emotional experience. Before a new song is written, it is mandatory that students participate in a group discussion. This offers them a platform to discuss issues that are affecting them personally, as well as their family and environment. M+M=M encourages all students to write material with positive content. M+M=M uses songs created by 'Songs 4 Cause' (S4C) for the musical content created during the program. S4C is a social change initiative that supports the use of music to promote activism, positive expression and to encourage students to critically analyze and deconstruct lyrics both within a historical context and as applied to current social problems. The pairing of music and social causes has the power to create long-lasting, emotional connections with listeners and the student artists. Writing songs for a social change enables students to promote positive experiences, opportunities and relationships that young people need to grow into healthy, caring, and responsible individuals. M+M=M participants are taught to examine, evaluate, and challenge common assumptions, premises, interpretations, and evidence that others have taken for granted.

*Creative Writing*
The 40 Developmental Assets for Adolescents (Search Institute, 1997, 2007) is the theoretical foundation for this program. This framework is grounded in research on child and adolescent development, risk prevention and resiliency in children. This model, divided into 8 broad categories of healthy human development, asserts that the more assets one has, the more likely he or she is to make healthy choices and to avoid high risk behaviors.

Building block assets include:

- *External Assets*: Support, Empowerment, Boundaries & Expectations, Constructive use of time
- *Internal Assets*: Commitment to Learning, Positive Values, Social Competencies and Positive Identity

M+M=M also utilizes this framework to guide the song building process. Students are provided with several different positive and inspirational themes from which they may draw inspiration for the song topic. Once students agree on a theme, they then began writing based upon a concept that supports the selected theme. These themes include, but are not limited to:

- Internal Assets Song Themes:

Achievement Motivation, Honesty, Planning and Decision Making, Self-Esteem

- External Assets Song Themes:

Family Support, Service to Others, Adult Role Models, Creative Activities

Developmental Assets in M+M=M song content (by grade level):
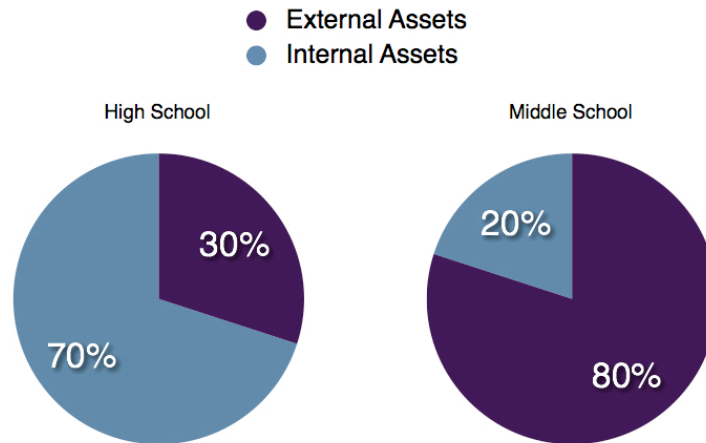
Alignment with Common Core Standards

KKYES's M+M=M lesson plans are in alignment with Common Core Standards (CCS) (Common Core Initiative, 2015) for middle and high school students in the following areas: Science and Technology, College/ Career Readiness/ Technical Education, Craft and Structure. Integration of Knowledge and Ideas, Comprehension and Collaboration and Mathematics

Science and Technology
*Through course work students are trained by KKYES personnel to:*
- Correctly utilize recording and production software like Pro Tools, Garage Band and Logic. Through learning activities, students gain knowledge on song sequencing, equalizing and compression of sound and identifying technical errors in audio productions.
- Understand the technology behind and use of audio bit streams, wave files (used as a visual representation of sound in digital computer format) and decibels (which are recorded and used to properly gauge sound levels for commercial release purposes)*.*
- Integrate quantitative and/or technical information into information visually expressed (e.g., a flowchart, diagram, model, graph, or table).
- Compare and contrast information gained from experiments, simulations, video, print and/or multimedia sources on the music-related topic.

College/ Career Readiness/ Technical Education
*As part of M+M=M programming:*
- Students are given professional responsibilities and roles in the classroom. Roles include: Recording Engineer, Accountant, Mixing Engineer, Music Producer, Song Writer, Recording Artist and Lawyer. Mock job interviews are conducted for several available classroom positions
- "Business in Art" lessons help student understand the effectiveness of research and planning. Students evaluate published material and must formulate a response to what they read. At the end of the program, students are tasked with creating a project board that conveys what they have learned during the program.
- Students perform a scripted play/performance that models music business-related transactions. In the performance, students demonstrate the entire process of making the beat, recording the song and paying for all services rendered. The cast is comprised of all the previously mentioned professional roles. The purpose of this activity is to allow students to see how all of the careers work together to create one product for the market place, which in this case is a CD to be sold after the performance.
- Students will utilize the marketing techniques taught throughout the program to sell their CDs to the showcase audience, family, friends and staff of their home schools.
- All students receive professional duplicates of their music to sell. Interpersonal skills are enhanced by teaching students product sales concepts and street marketing techniques.

Craft and Structure
*Through M+M=M course work:*
- Students are taught over 200 new vocabulary words throughout the course of the M+M=M program.
- Students are required to read and listen to lyrics. So that students may get a better understanding of their professional roles, KKYES staff routinely recommends the reading of biographies written by engineers, producers and industry executives.
- Students are regularly engaged in discussions regarding the materials they listened to, watch and read.
- Students will be taught to interpret written words and phrases, including determining technical, connotative, and figurative meanings, and analyze how specific word choices shape meaning or tone.
- Determine the meaning of written words and phrases, including figurative, connotative, and technical meanings; analyze the impact of specific word choices on meaning and tone, including analogies or allusions to other texts.
- Students will listen to popular socially conscience songs and answer questions to help them identify with the purpose and content of the lyrics. This process aids students in their approach to creating songs with social purpose.

Integration of Knowledge and Ideas
*As part of M+M=M programming, students will learn to:*
- Analyze two or more similar song themes or topics in order to build knowledge or to compare the approaches the authors take
- Compare and contrast a written song, or poem to its audio, filmed, staged, or multimedia version, analyzing the effects of techniques unique to each medium (e.g., sound, equalization, song content, audio levels, frequency response, etc.).
- Compare and contrast the experience of reading lyrics, or poems to listening to or viewing an audio, video, or live version of the text, including contrasting what they "see" and "hear" when reading the text to what they perceive when they listen or watch.

Comprehension and Collaboration
*Through M+M=M course work, students will be taught to:*
- Integrate and evaluate information presented in diverse media and formats, including visually, quantitatively, and orally.
- Interpret information presented in diverse media and formats (e.g., visually, quantitatively, and orally) and explain how it contributes to a topic, text, or issue under study.
- Analyze the purpose of information presented in diverse media and formats (e.g., visually, quantitatively, orally) and evaluate the motives (e.g., social, commercial, political) behind its presentation.

Mathematics
Students will learn how to produce music while simultaneously enhancing financial literacy and math skills. The program fuses music, with math in a creative and synergistic way. This program utilizes Questions Scenarios and Answers (QSAs). QSAs are mathematic questions asked in word problem form. These scenarios are based on true stories and occurrences of music industry professionals. These types of questions are prescribed by CCS for the population the M+M=M program serves.

According to the CCS related to Mathematics, students shall be competent in the following areas:

I.   Make sense of problems and persevere in solving them
     Mathematically proficient students start by explaining to themselves the meaning of a problem and looking for entry points to its solution.

II.  Reason abstractly and quantitatively
     Mathematically proficient students make sense of quantities and their relationships in problem situations.

III. Construct viable arguments and critique the reasoning of others
     Mathematically proficient students understand and use stated assumptions, definitions, and previously established results in constructing arguments.

IV.  Model with mathematics
     Mathematically proficient students can apply the mathematics they know to solve problems arising in everyday life, society, and the workplace.

V.   Use appropriate tools strategically
     Mathematically proficient students consider the available tools when solving a mathematical problem. These tools might include pencil and paper, paper *fake money*, a calculator, a spreadsheet, or dynamic geometry software.

VI.  Attend to precision
     Mathematically proficient students try to communicate precisely to others. They try to use clear definitions in discussion with others and in their own reasoning. They state the meaning of the symbols they choose, including using the equal sign consistently and appropriately.

In an effort to align with CCS, Mathematics (math) components of the M+M=M program focus on the following:
  • Connecting ratio and rate to whole number multiplication and division and using concepts of ratio and rate to solve problems
  • Completing understanding of division of fractions and extending the notion of number to the system of rational numbers, which includes negative numbers
  • Writing, interpreting, and using expressions and equations

- Developing understanding of statistical thinking.
- Developing understanding of and applying proportional relationships
- Developing understanding of operations with rational numbers and working with expressions and linear equations

*During the M+M=M program:*
- The class will be organized as an entertainment company with one set budget for the entire project. The class is then further divided into mini-business groups. It is each group's responsibility to properly distribute and manage the funds. The class will have to develop a viable plan that is aligned with the budget available for the production and recording of the project. Students must meet the challenge of delivering a finished project without overspending the available funds. This problem solving allows the students to recognize the importance of responsible money management skills, not only in business but in life as well.
- Every music project has a budget based on the company title and service fees. This budget is given to the artist to pay for various expenses and complete an entire product. These expenses include everything from production (beats) to music videos to the graphic arts (album cover) etc.
- Students learn the importance of budgeting by building accounts to produce a final project through highly engaged financial choice scenarios pertaining to the music business. Credit is spent and saved daily in the class. This is designed to give students individual control of their budget. It is important for students to understand *good vs. bad* spending habits in business and daily decision making.

### III. SCOPE OF WORK

During the period of January 19, 2013 through March 28, 2015, Kariz Kids Youth Enrichment Services (KKYES) administered the MATH+MUSIC=MONEY (M+M=M) curriculum to middle and high school age students in Rochester, New York, Laurel, Maryland and Baltimore, Maryland. The course was designed to provide high school students with exposure to various careers within the entertainment industries. As part of the M+M=M program, students were divided into creative and business groups and assigned "job titles" based on their interest in a given position. These positions were rotated throughout the program and students were required to hold each of the above-mentioned roles before the end of the program. The job titles include Music Producers, Accountants, Acting Audio Engineers, Song Writers, Recording Artist, and Lawyers. The purpose of this exploratory study was to determine the most effective pedagogical approach for each student demographic. Student outcome assessments were obtained from 167 participants at baseline (class 1) and after the completion of the M+M=M program. An evaluation interview was conducted with each student at the conclusion of the program as well.

**IV. THEORETICAL FOUNDATION**

40 Developmental Assets for Adolescents are essential qualities of life that help young people thrive, do well in school, and avoid risky behavior. This guiding principle is used by KKYES in all efforts to promote positive youth development.

**V. ENROLLMENT**

82 High school age students (65 males and 17 females); ages 14 through 19
85 Middle school age students (38 males and 47 females); ages 12 through 14

Participating Schools/Institutions:

| Name | N | Type | Dates |
|------|---|------|-------|
| Maya Angelou Academy | 30 | High School/ Adjudicated | Jan 2013 - May 2013 |
| Maya Angelou Academy | 30 | High School/ Adjudicated | Jan 2014- Apr 2014 |
| Maya Angelou Academy | | | Oct 2014 – Dec 2014 |
| Creative Alliance* | 24 | 2 Middle Schools | June - August 2013 |
| Creative Alliance* | 12 | 1 Middle School | Sept-Dec 2013 |
| Creative Alliance* | 37 | 4 Middle Schools Summer Session – 8 weeks | June-Aug 2014 |
| Creative Alliance* | 12 | 1 Middle School Special Session – 8 weeks | Sept 2014 -Dec2014 |
| Rochester NY* | 22 | 2 High Schools | Dec 2014- Mar 2015 |

*contract organization

High Schools:
Organization Host: Rochester, NY
 – Rochester Mentoring Charter School, Rochester, NY
 – Greece Arcadia, Rochester, NY

Maya Angelou Academy, Laurel, MD

Middle Schools:
Organization Host: Creative Alliance
 – Patterson Park Charter, Baltimore, MD
 – Stadium School (Summer Enrichment), Baltimore, MD
 – Northeast Middle (Summer Enrichment), Baltimore, MD

Student Make-up (by race/ethnicity):
95% Black
4% Hispanic
1% White

**VI. METHODS**

The M+M=M OST program was administered by a KKYES lead music instructor and assistant. Each school referred participants to the program based on their own eligibility criteria. Some students expressed interest in the field and other were required to attend as part of their educational plan. Program registration, for both the middle and high school-age participants, remained open until 12 students were enrolled .Middle School-grade programs were scheduled from 3 to 6 pm Monday through Friday (*Avg.* 90 mins. per session). High School-grade programs were offered one hour of programming per week (day of week varied; *Avg.*90 minutes. per session).

**VII.   DATA COLLECTION**

Student Engagement Survey (SES): The KKYES senior personnel administered interview was conducted at the conclusion of the M+M=M program.

Pre/Post Benchmark Survey were completed by High School and Middle students at session 4 and at end of M+M=M program.

Pre/Post Benchmark Survey: Responses were rated on a Likert scale of 1 through 5
Scores of 1 -3 = Negative Response/No/Never; Scores of 4-5 = Positive/Yes/Always

Lead Teacher and Assistant Evaluations: Students were evaluated based on the following criteria: Retention of information, Ability to solve problems, Positive increase in Societal Decisions, Discipline in Day to Day Activities and Lesson Comprehension. The KKYES operations team reviewed student workbooks daily and at program completion.

*Limitations*
Outcome assessments were completed by 120 of the total 167 participants.

**VIII.   OBSERVATIONS OF NOTE**

*Students*
Response to Recruitment:
Many students reported feeling like they were not given enough time to enroll (schools did not promote the opportunity early enough).

Program Duration:
Students requested for the program to run two days a week rather than the one that was scheduled

Web-based Instruction/Interactive Email Updates:
One hundred percent of high school students participating in the program had a personal e-mail addresses and 89% of respondents reported checking it at least twice a week. To encourage student retention and keep the target population engaged, an M+M=M content marketing campaign launched. KKYES staff was required to send e-mails to students at regular intervals throughout the week. The aforementioned e-mail publication schedule included songwriting tips, embedded You Tube engineering and music production

tutorials, and information specifically tailored for students with interests in music industry careers, including age appropriate articles on Entertainment Law, Audio Engineering, Sound Design or Commercial Music Production.   Students responded positively to this activity. Students received instruction on how to appropriately use the GOOGLE search features for research and not just for entertainment and recreational purposes.

Daily Rap Sessions:
Each day's program was opened with a five minute candid discussion where students were encouraged to weigh in on lesson plans and their expectations of the program. These Daily Rap sessions also set the stage for discussions of songs and participants' shared experiences.    This activity brought the groups together to foster good working relationships and better musical outcomes. Through the student's daily evaluations of program operations, it was determined that high school students have less opinions about the art of music and more opinions about the business and how it is conducted in the music industry.

Participant Satisfaction:
High school students positively responded more to career or work activities, self-reflection, arts and culture. Middle school students positively responded to the academic enhancement, music production workshops and live performance. Both groups of students were asked "what would make the program better?" The results were common with both demographics. The majority stated that they wish they had their own laptop or keyboard to work on in the classroom. Classes are generally taught using one computer and one keyboard. Students are forced to rotate.   Students reported that it was often difficult for them to fully appreciate the experience.

Exposure to New People:
High School student's mutual respect for all parties involved grew through program participation.  Students rated accountability as important for efficient performance.

Exposure to New Experiences:
Participants reported a high degree of satisfaction with the extent to which M+M=M program exposed them to new experience.  High school age youth suggested that there is more room for improvement in terms of access to the activities throughout the week, need for more music production stations, additional laptops and keyboards etc.  Many expressed that improvements in these areas would help with engagement during the hands on and technical aspects of the program. All Classes are currently being administered using one computer/music station connected to a projector.

Participant Attendance:
High School age youth reported a sense of belonging in the M+M=M program, could see the academic benefits of full participation (definition: regular attendance). Students who logged higher numbers of classroom instruction reported higher rates of enjoyment with the program.

Gender-Specific Programming:
It is widely known that high school students self-segregate by variables such as race, gender and general interest. High school age girls proved to be more shy and apprehensive about recording their vocals in front of the male students. Female high school students were more likey than their male counterparts and middle school students of both sexes to report feeling uncomfortable discussing personal issues in a multi-gendered environment. Seventy Percent of those surveyed, also felt negatively affected by the presence of the opposite gender during the recording session.  Many females reported being afraid, being bullied and made fun of.  These thoughts directly affected the female students' level of engagement. When a female music mentor was utilized for instruction, the female students immediately felt more comfortable with themselves and their participation increased. This prompted KKYES' to use a survey to confirm this phenomenon. As a result of this experience, high school age female participants were assigned to gender-specific groups moving forward for the production and recording of the first song in the project. The recording studio is a very vulnerable and intimate place where artists have the opportunity to express themselves and their feelings towards various issues. We noticed that female students became more engaged and less shy after working with the visiting female artist volunteer. Note:  Middle school age girls did not report the same apprehension with participating in the program.  In fact, 7-8th grade girls were very willing to express themselves in front of the male students.

Music Production:
High schools students displayed a lack of impatience while a beat was getting created during class sessions. Students were more engaged in the lyrical compositions rather than the musical compositions. They agreed that it would be better to have pre-made instrumentals for the majority of the songs they record and to custom make one beat for their project (many reported that they felt that it took too long to produce the beats in class and it was distracting them from writing). High School participants also reported a high degree of understanding concerning the Producer to Client relationship and how respect for the customer and their needs can benefit the song or project (students reportedly enjoyed the business portion of selling beats more than the creative process of making beats).

Recording Engineering:
All students expressed pride in their work and reported positive interest in learning and operating recording software.  On the post-test assessment, high school participants reported a high level of engagement in Recording Engineering. These students were typically tech savvy with a good ear and eye for music technology and all its components. High School students demonstrated a great sense of detail when it came to the audio quality of a recording. The more efficient the students become in the production software the more comfortable they are in creating the music themselves.

Financial Literacy:
Students of both grade groups agreed that problem solving and critical thinking activities were less challenging and more interesting because the content was built around music and pop culture references.

Professional Development:
High School students reported a greater interest in identifying their true passion and talent than their middle school counterparts.

Song Writing:
A positive association between program participation and the perception of therapeutic release through song was repeatedly observed. Many Students used song writing as therapy. At the conclusion of the program, students reported a greater ability to address personal issues. Many also reported that the program provided them with an opportunity for therapeutic expression and to experience social acceptance.
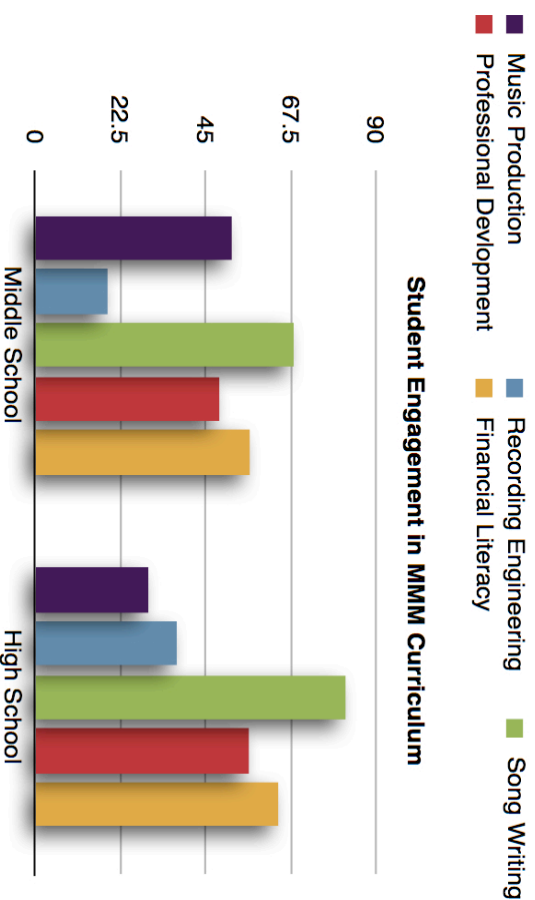
Student Engagement Survey (SES)
The following chart shows students responses to the SES (according to grade level – High School (HS) vs. Middle School (MS))

| MUSIC PRODUCTION | % MS | % HS |
|---|---|---|
| Innovative Thinking | 67 | 19 |
| How much does making beats inspire you to be more creative? | | |
| Decisive Action | 88 | 33 |
| How comfortable are you in deciding the right musical composition for your song lyrics? | | |
| Customer Service | 30 | 28 |
| How comfortable are you selling beats to a recording artist/client? | | |
| Client Relations | 23 | 40 |
| Do you anything special to encourage that client to return to you for services? | | |
| Total Percentage of students who reported a high level of engagement in the aforementioned M+M=M Component | 52% | 30% |
| RECORDING ENGINEERING | | |
| Software Management | 20 | 38 |
| How comfortable are you operating the software used in class? | | |
| Technical Career Trade | 33 | 46 |
| How interested are in you in pursuing a career in the audio field? | | |
| Core Field of Study | 15 | 37 |
| How much do you enjoy the art of recording engineering | | |
| Connection to Resources | 9 | 29 |
| Rate the amount of time you spend outside of class researching the recording arts | | |
| Total Percentage of students who reported a high level of engagement in the aforementioned M+M=M Component | 19.25% | 37.5% |
| SONG WRITING | | |
| Lyric Compositions | 61 | 92 |
| Rate how much you enjoy writing your own songs. | | |
| Positive Concepts | 92 | 86 |
| How much do you prefer to be given positive song topics to choose from? | | |
| Building Melody | 52 | 68 |
| How important is melody to a song? | | |
| Total Percentage of students who reported a high level of engagement in the aforementioned M+M=M Component | 68.33% | 82% |
| PROFESSIONAL DEVELOPMENT | | |
| Leadership | 74 | 56 |
| Rate how often you help others in your group | | |
| Self-Assessment | 30 | 78 |
| How well did you perform in class during the business activities and workshops? | | |
| Cooperative Learning | 68 | 40 |
| How much do you enjoy working in groups? | | |

| | | |
|---|---|---|
| Administrative Skills | | |
| How much do you understand about the administrative responsibilities that apply to the music industry? | 23 | 52 |
| Total Percentage of students who reported a high level of engagement in the aforementioned M+M=M Component | 48.75% | 56.5% |
| FINANCIAL LITERACY | | |
| Money Management | 92 | 60 |
| How important is it for an artist to correctly manage his/her own money | | |
| Problem Solving | | |
| How comfortable were you with answering the Math Problems (QSA-Questions Scenarios & Answers) in your student workbook? | 34 | 73 |
| Planning and Saving | 57 | 69 |
| As an artist, how important is having a financial plan? | | |
| Entrepreneurship | 44 | 55 |
| Rate how comfortable you feel capable of earning an income as an artist | | |
| Total Percentage of students who reported a high level of engagement in the aforementioned M+M=M Component | 56.75% | 64.25% |

Total Percentage of students who reported a high level of engagement in the following M+M=M program components (by grade level):



Student Engagement in **MMM Curriculum**

Legend:
- Music Production
- Professional Devlopment
- Recording Engineering
- Financial Literacy
- Song Writing

Categories: Middle School, High School

Axis values: 0, 22.5, 45, 67.5, 90

*KKYES Lead Teacher and Assistant Evaluations*

Response to Recruitment:
High School students engaged positively in academic group environments by incorporating song as a form of communication and self-expression while building the confidence to interact with others. Students were still attempting to register after enrollment was closed.

Participant Attendance:
At the Rochester Mentoring Charter School (RMCS), attendance rates were low.   We learned that many students were dismissed at 10:30am on the days the program was scheduled to begin at 11am. By the 5th week of the program, 50% of the original roster had withdrawn or ceased regular attendance.   The remaining students had a 90% attendance rate. The remainder would shift in and out the class making it difficult to follow curriculum and commit to the program deliverables.  Due to the persistent absences, several adjustments were made to the remaining the lesson plans

Lesson Plans:
The list of activity activities for high school students differed from that of the middle-grades programs. High School students were given a narrow set of activities and topic areas with which to focus. Being that High School students are more responsive through email, it is suggested that a database of visual media clips should be incorporated into the program. These links and videos should include live performance videos, entertainment lawyers discussing real scenarios, artist financial advisors speaking about the importance of properly managing finances, music producers speaking about their experiences in business and recording engineering tutorial videos. Lesson plans should also include more literature from magazines and books that highlight the several careers and professions that are responsible for the driving force of the mainstream and independent recording artist. This will help students connect their newly identified passions to a tangible career path.

Daily Research Groups:
Computer and WIFI access were required for the high school variation of the M+M=M program. Classroom Internet use and interactive instruction must become the norm. Students were responsive to seeing and hearing information accessed via technology.  These tools are very helpful when attempting to engage a classroom with more than 10 high school students.

Program Participation:
High School students are less willing to demonstrate vulnerability in their lyrics due to the fear of being bullied or teased by their peers. Lead teachers observed that High School age students were more likely to make fun of and to insult each other.   The immaturity of this group caused songwriters to be afraid to write about real issues that affect them.   These behaviors were counterproductive and were not reflective of studio etiquette standards.

Psycho-Socio Development:
Middle School participants were more often able to freely create and make mistakes in the recording process without the pressure of being ridiculed by their peers.

40 Developmental Assets in Song Content:
In the evaluation of 20 original student written and produced songs, KKYES found that 70% of the song content written by high school students supported Internal Assets and 20% of song content written by middle school students' supported External Assets within. Moving forward, this data will help us to better serve program participants by tailoring lesson plans to encourage song concepts that evenly support both external and internal developmental assets.

Web-based instruction/ Interactive Email Updates:
High school participants were very responsive to internet-based assignments. These students requested that more literature and instruction videos be emailed to them.

Music Production:
Producing original instrumentation is a time sensitive activity that has the potential to dominate a 90 minute lesson plan. Smaller group or individual production workshops are needed to better engage aspiring producers. Students were more engaged in the song making when they assisted in the entire creation process.

### IX. CONCLUSION

Although the focus of the program differed slightly for each grade level, the core components of the curriculum worked well in both middle and high school populations. Program activities encouraged students, who may not have otherwise, to look deeper into audio technical and art-related career paths. Through this data collecting experience, KKYES has learned that achieving high levels of student participation requires use of strategies including offering a wide range of activities and communicating regularly with schools and student families. As the company enters its next phase of operation, evaluation findings from the past 12 months point to elements of program that should be maintained as well as areas in which improvements are required. This evaluation will aid KKYES staff in creating more effective lesson plans and opportunities for activities that will improve program outcomes. It is important that moving forward in working with High School students that we provide the highest quality program as possible.

*Moving forward:*
- The M+M=M OST programs will only be offered on full school days only (early dismissal directly affected the attendance rate of the program) for High school participants.
- KKYES will work to fostering stronger relationships with host schools: at facilities where the administration maintained open lines of communication with KKYES staff, students were better behaved and participation was consistent.
- Add a female visiting artist to every program to further assist the female students with the song writing and professional development components of M+M=M.

- Multiple work and recording stations are needed to improve the students' experience and encourage greater participation.
- 40 Developmental Assets in Song Content:  High School students will be tasked with writing songs with External Asset inspired themes. Based upon research done by the Search Institute, External Assets encourage adolescents to make constructive use of time, to respect boundaries and expectations, and to empower others. When students have higher levels of assets, they are more likely to do well in school.

## X.  REFERENCES

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