

Mercer Island School District #400 Board of Directors Meeting

February 24, 2015

Monitoring of Fundamental 4

Fundamental 4: Encourage and enable students to be academic entrepreneurs and risk-takers who can choose to pursue academic passions and interests beyond traditional curriculum and beyond the traditional classroom environment.

BACKGROUND AND FACTS:

The instructional team is committed to implement Board Policy 2020 the Vision, Mission and the six fundamentals. The following data and analysis describe the work being done in our schools to implement Fundamental 4 – Encourage and enable students to be academic entrepreneurs and risk-takers.

The leadership team used the superintendent’s interpretation of Fundamental 4 and based on the interpretation supported by the board, the following monitoring is presented.

QUANTITATIVE INDICATORS

Numerous quantitative factors from the Asset Survey and the Educational Effectiveness Survey were considered and the following indicators were selected for Fundamental 4.

Indicator		SY 09-10	SY 10-11	SY 11-12	SY 12-13	SY 13-14
Developmental Asset Survey Results – given to MIHS students in alternate years	Total number of Developmental Assets (40 possible) report by MIHS students	20.5		21.7		21.1
	% of students reporting the Asset of “Youth Programs”	78		81		80
Educational Effectiveness Survey Results – given to student in grades 5 through 12	% of students who agree “My teacher(s) provide lessons and activities that challenge me to learn”	74	74	75	77	79
	% of students who agree “My teacher(s) listen to my ideas and/or concerns” ¹				69	72
	% of students who agree “My teacher(s) help us learn in more ways than just talking in front of the class” ²				66	70
	% of students who agree “Work I do in this school is useful and interesting to me”	45	49	47	49	48
	% of students who agree “My teacher(s) help me learn by challenging me with interesting activities in class” ³				55	57
	% of students who agree “My teacher(s) find other ways for me to learn things I find difficult”	48	52	53	56	57
	% of students who agree “Setbacks don’t discourage me” ⁴					68
	% of students who agree “I try things even if I might fail” ⁵ me” ⁶					76
	% of students who agree “I like to imagine new ways to do things” ⁷					77

As data are available, five years are shown. 1 Questions only available on the Educational Effectiveness Survey since 2013. 2 Questions from the additional Student Engagement, Motivation and 21st Century Skills Survey administered with the Student Educational Effectiveness Survey beginning in 2014.

One striking indicator shows that 80% of our High School students “spend three or more hours per week in sports, clubs, or organizations at school and/or in community organizations.” While we know that does not indicate exactly how many students participate in clubs at schools, it is an indication that students are involved in activities that are of interest to them and potentially they have passion around.

These data also show that students perceive their teacher(s) provide lessons and activities that challenge them, are more than just “talking in front of the class”, and provide ways to learn difficult ideas. Students see them selves as creative and are willing to try new things, even at the risk of failure.

QUALITATIVE INDICATORS:

The following qualitative data provide snapshots into Fundamental 4 – Encourage and enable students to be academic entrepreneurs and risk-takers who can choose to pursue academic passions and interests beyond traditional curriculum and beyond the traditional classroom environment. The Fundamental has been divided into three themes:

Theme 1: Academic entrepreneurs and risk-takers

Theme 2: Pursue academic passions and interests

Theme 3: Beyond traditional curriculum and beyond the traditional classroom environment

Several, but not all, will be highlighted at the February 24, 2015 board meeting.

Theme 1: Academic entrepreneurs and risk-takers

- **IP Second Grade Marketplace** - Marketplace is a simulation-based opportunity for students to apply the concepts they have learned in several subjects including social studies, writing and math. Using their understanding of producers/consumers, goods/services, supply/demand, wants/needs and raw/capital materials, students decide what they could create at school that would be a success in the classroom marketplace. Using math skills such as graphing and surveying, students determine whether or not there is a demand for the products they design. They decide on an initial price for their creations, create advertisements (persuasive writing) and maintain accounting ledgers to document sales. Participants take turns being bankers as play money is exchanged and worker paid wages.
- **Highly Capable Marketplace** - Students in the highly capable program study and apply economics in a simulation-based activity called Marketplace. The students learn about supply and demand and how entrepreneurs need to be able to respond to a changing market environment. The students come up with their own ideas for products or services to sell. They have a few program restraints that they have to take into account. Once they have come up with an idea, then they complete a business plan for teacher approval. When the product or service has been approved, they work at home to create the product. They are also encouraged to package and/or market the product in a creative and engaging manner. A live

Marketplace is then held in the classrooms, with parents, students, and staff acting as consumers. Data is collected after each marketplace, and the students discuss the shopping trends observed. Each student is free to use this information as he/she prepares a product for the next marketplace.

- **Giraffe Club** - Each year, second grade students are asked to participate in the "Giraffe Club." The second grade teachers encourage students to learn to "stick their neck out" to help try to solve a problem or support a cause in their community. The students are exposed to biographies of famous Americans who made a difference as a part of the social studies curriculum. Through that learning, students then determine something that they can do to make a difference. Projects have included cleaning up garbage in a local park, collecting books or supplies for local organizations, or making money to donate to a specific cause. The students then share out their project through an oral presentation to their class.
- **Online Publishing** - In fourth grade, we truly work to empower our students to take ownership in their learning and pride in what they do. We encourage our students to be the drivers in making decisions that show their independence and application of concepts and skills taught in class. This fits well with our district's vision. For the past few years, fourth grade students create Weebly webpages. These are personal student webpages that students build step-by-step, including various pages that are linked off of their home page. Some of the pages include an "About Me" or "Interests" page, "School Work" page, and often a page that includes their own personal "Blog" or "Surveys" for others to complete. On their "School Work" page, students are able to share their learning projects and writing pieces with a greater audience, often sharing the link with family members and friends who don't live near. It's a great way for students to not only learn more about website design and appropriate digital citizenship, but also lets them take pride in finding ways to showcase their growth as students and individuals and take risks in presenting their work to a wider audience. Students truly enjoy the process of personalization involved in creating their Weebly webpage. This project is an evolving work in progress, and one in which students can demonstrate perseverance and the opportunity to push themselves in ways they hadn't imagined before.
- **Science Projects Options** - Many science projects at IMS give students the opportunity to be academic entrepreneurs and risk-takers in creatively representing their ideas and/or making their work public.
 - For example, the Google Science Fair initially resembles the Independent Research Project described below. However, student experiments must test a solution to a problem, showcase the experiment and its results in a two minute video, and (with parent support) be submitted online to an external panel of judges.
 - In another project, student were given the option to: "Use a creative format to capture and communicate the relevance of new life forms, extinct life forms, and major geologic events of one specific time period," some students wrote, composed, and performed their own pieces of music.
 - On a different assignment when given the option to research earthquakes or other catastrophic events, some students commit to long-term writing, editing, and publishing of blog entries. In an authentic way, they learn as much about writing for an audience and maintaining a theme between entries as they learn about the topic of earthquakes.
- **Advanced Enrollment (Running Start, AP, College in the High School, etc.)** - Mercer Island HS has numerous opportunities to prepare students to be academic entrepreneurs and risk takers for college academics with rigorous curricula. The HS currently offers 18 Advanced Placement Courses including AP Calculus, Biology, Chemistry, History, Spanish, and English

Literature to name a few. Currently MIHS has 453 students enrolled in an AP class. Mercer Island HS also offers Dual Enrollment classes to provide the exceptional student a chance to accelerate his/her collegiate studies. Students receive both high school and college credit for these classes and therefore accelerate their progress through the education system. Students receive college credit in Spanish, mathematics, several sciences, and many College and Career Ready courses. Students in grades 11 and 12 are allowed to take college courses at Washington's community and technical colleges as part of another program we offer called Running Start. In the fall, there were 37 full time students in our Running Start program (14 Male and 23 Female) and two part time male students as well.

- **Bolt Project** - Two of our 11th grade DECA students along with a computer software developing student in AP Computer Science are nearing completion of "Bolt", a student iPhone and iPad app. • Bolt focuses on daily schedules, announcements, calendar, lunch information and contacts. Students would enter their individual classes into the app and then the information would sync from the school website to their iPad or phone. Students used this project to compete at a local DECA competition on January 8, 2015 and placed 2nd in the Entrepreneurship Innovation Plan competition!

Theme 2: Pursue academic passions and interests

- **Elementary Afterschool Clubs** - All three Mercer Island Elementary Schools encourage students to pursue their interests through before and after school programs that are sponsored by the PTA or privately sponsored. A wide selection of offerings include: a range of activities from Gardening Club, to art and craft groups; karate; Sponge Language Programs; BOKS; running club; rocketry; and many more. Additionally, music programs such as Steel Drum Band, Ukulele Club, Choir, Band and Orchestra allow students the opportunity to select to participate in activities that expand their horizons and allow them to develop new passions.
- **Elementary Musicals/Operettas/Talent Shows** - Each year, all three elementary schools put on several productions and concerts to not only allow the schools to showcase their music programs, but also to allow students to develop their own talents through performances. At Lakeridge, these performances include the 5th Grade Operetta, Veteran's Day Assembly, All School Musical, and three choir and steel drum band concerts. At Island Park the annual 5th grade play and a choral concert by each grade level throughout the year are highlights. At West Mercer, students perform for their peers displaying their musical interests through the Musical or Talent Show, the Drum Club, the Orff Club, and the intermediate choir. Finally, each year the three elementary schools showcase student interests in the Fine Arts Showcase through art and musical performances by students.
- **Science Fairs** - At each of our three elementary schools, we partner with our PTAs to engage students in scientific inquiry, culminating in a community Science Fair. Students are provided with guidelines and information about using the scientific method to ask a question and engage in an experiment in search of an answer. Student participation is voluntary, self-directed, and predominantly occurs outside the school day. Students are encouraged to pursue a question of interest to them, and each year the fairs display a wide range of scientific interests and topics. The science fairs occur in the evening, and students who attend are provided with a note-taking form that encourages them to ask clarifying questions of the presenting scientists and record the learning they gain from exploring the various scientific presentations. Outside agencies with a scientific focus, such as the Pacific Science Center, Issaquah Salmon Hatchery, the Seattle Children's Museum, or the Reptile Man, are often invited to participate in the evening event.

- **Independent Research Project (IRP)** - Pursuing academic passions and interests is what helps our students engage in the material and make connections to the world outside the classroom. One such example in eighth grade science is the Independent Research Project (IRP). First, students generate their own investigative question related to their hobbies, interests, and curiosities. IRP topics selected by our students range from lacrosse, football, and soccer to music, art, and even other disciplines of science (chemistry, physics, aerospace, etc.) depending on student preference. Once a question has been selected, students analyze and interpret current research to create a hypothesis/claim that answers their question. Following the scientific method, they then design and conduct their own experiment, collect and analyze data, and use that data to support or refute their original claim. Students also strive to apply their results to other real world scenarios and identify and discuss potential sources for error in their experiments. While the skills needed for this rigorous work start much before eighth grade, this is often the first time they are asked to put all the skills together into one product. In preparation, students practice these critical thinking/problem solving skills with many scaffolded lessons and labs based on earth science topics we learn throughout the year, giving them the support needed to master necessary skills. Then when ready, the IRP offers students the academic freedom to explore what matters to them while applying those skills. In the process we get to make more meaningful connections with students by learning about what is important to them and they, in turn, gain a deeper, long-lasting understanding of how science is prevalent in their world.
- **Middle School Electives** - Within this section, IMS has placed a spotlight on three of its many electives. These three truly capture student interests and allow them the choice to pursue their passions.

 - **Media Tech** is a hands on filmmaking class where students produce short, original films. The students work in small groups where they utilize an assortment of software and filming tools. The end results are often personal narratives reflecting the lives of middle school students. Many are shared before the school in the format of Gator Vision on Wednesday afternoon. This is one class where students do not need to be motivated or told to get to work. They are constantly busy in the various stages of film production. The passion and interest they bring to the class is often shown in the enthusiasm they display and the quality of their final products. It's unique to have such a workshop-based learning experience for students at this age, but it works, and they really are the ones who drive the curriculum.
 - **Photo Film Music** attracts a more introspective student than the type who would take Media Tech. This class is best described as an art appreciation survey of the mediums in its title. Students are exposed to the work of master musicians, photographers, and filmmakers. They are then challenged to put these works in their cultural and historical contexts. Further extensions allow students to challenge their own artistic abilities and understandings by interacting with the work through various formats. As with Media Tech, Photo Film Music is a place of creative academic pursuit for students who are passionate about self-expression.
 - **Global Citizenship** is offered as an elective to 7th and 8th grade students. The class begins with a focus on human rights, using the United Nations Universal Declaration of Human Rights as a starting point. Students then have the opportunity to explore our world today through the lens of civil liberties as well as civil abuses. Hopefully students will feel empowered to "make a difference" through some type of service project that they develop. This course combines geography, civics, economics, and cultural studies while preparing students for our 21st century world.

- **Afterschool Clubs** - While there are many afterschool clubs that allow middle school students to pursue their passions, the following two examples center on student interest and passion.
 - **FIRST Lego League Robotics Club** - The IMS Robotics club has adapted Lego League Values and follows the guidelines to create an environment for students to take initiative in pursuing their learning. Students learn basic programming in the sixth grade science unit. The difference from the 6th grade unit is that the students in the club are given a real life challenge annually. For example how to improve senior citizens' life, to save energy and the environment, or to assist in a devastating disaster, and by researching and talking to experts they attain their own solutions show connections to real life. At the same time they are required to solve topic-related missions on a robot field with a robot and few exchangeable attachments they created.
 - **WE Act Club** - The WE Act Club at Islander Middle School is an after school club that meets every Tuesday and is open to all Islander Middle School students. WE Act is a yearlong educational program that stems from the inspirational WE Day event. As stated on the WE Day website, WE Act is the blueprint for young people to take action as agents of social change. WE Act is an educational program that empowers young people to become active local, national and global citizens. WE Act is more than curriculum, more than educational resources and action campaigns; it's a movement of students and educators who believe that some of the most powerful learning experiences happen when you make a meaningful difference in your communities and for the world. Islander Middle School students participating in the WE Act club will earn their way to the WE Day event in Seattle on April 23, 2105. In order to earn their ticket to WE Day, students take on at least one local and one global action. WE Act helps students gain diverse skills and perspectives that challenge apathy and encourage active citizenship. This year Islander's WE Act club organized the Holiday Food Drive for their local project and they are currently in the midst of working with Free The Children to plan their global project. The WE Act program is designed to increase students' academic engagement, active citizenship, and university and workplace readiness through diverse learning tools and resources.
- **High School Afterschool Clubs** - Students explore and express their interests in one of 26 afterschool clubs or activities. Some examples of clubs are: Stock Club, Robotics Club, Science Club, Senior Service Club, Chess Club, Art Club, Poetry Club, Interact Club (Rotary based) and Women in STEM. Most clubs are open to the entire student body and allow for students to explore their passions.
- **MIHS Elective Offerings** - There are over 50 elective courses where students can explore their passions and interests in science, technology, business, humanities, politics, visual arts, performing arts, and broadcasting. Examples of these are if a student has an interest in marketing or business they could take Business Law or Accounting as an elective. For real world experience the high school program offers Advanced Marketing and Retail Management where our students actually help run and manage our student store and serve as members of a corporate team as CFO's and CEO's. If the student has a passion for visual media, the school also offers Digital imaging and video art working with green screens and studying video production. There are courses offered in the sciences around Biotechnology where students are surveying and working in teams around real life projects studying increased heart rate and multi-tasking of our high school students. Students can pursue more personal interests in Glass Art or Metals and Jewelry with some non-conventional materials.

Theme 3: Beyond traditional curriculum and beyond the traditional classroom environment

- **Elementary Gardening Group** - The idea started in September with a question at WM: Can we go in the Courtyard? Many 4th grade students showed a keen interest in the courtyard. Parent volunteers had just finished clipping and pruning and there was a job for anyone who wanted to clean up our Courtyard Garden. Four girls started the work and each day more 4th graders asked to join in. Now the West Mercer Gardening Crew is an even dozen, all 4th graders. They meet once or twice a week during their lunch time. They have cleaned up the Courtyard Garden and have weeded it. They also planted bulbs in a garden, at the front of our school, to honor Nancy Burrill, a teacher, who recently passed away. A staff member, who is a potter, will work with her class to develop a sign for that garden.

Now the Gardening Crew is working in partnership with the West Mercer Green Team, planning a special event for Earth Day in April. They have worked with a Master Gardener to name each plant in the courtyard. Each student Gardener has adopted a plant and has researched it. They are now working on being able to identify each plant and locate it. Soon they will be able to tell something special about each plant. For Earth Day, we will have tours of the Courtyard Garden. A Scavenger Hunt is also planned along, with signs for each plant in the courtyard. This group is a dedicated group who came together by chance but is developing a strong bond and want to support and take pride in their school.

- **Art Projects** – There are many service and fundraiser projects that happen each year at MIHS around students' interests and passions. Below are two examples:
 - One of MIHS seniors has spent the last two years collecting school supplies and sending them to Sierra Leone. He learned that through civil wars in this country that schools have been destroyed the past ten years. This student raised over \$800 and 500 pounds of school supplies to ship to that country for students to continue to make art and learn. This story was recently featured in the winter edition of District News.
 - Art Club/National Art Society students held a fundraiser during the holidays to earn funds to cover the cost of the National Art Honor Society charter dues and to purchase art materials to use to create art in club meetings. The students spent hours creating handmade glass foiled ornaments, watercolor greeting cards, and positive message charm necklaces, which they sold during lunches. After expenses, the club surpassed their \$500 goal, and they are now creating expressive, personal art with some of the proceeds. The club is working on future plans for a public art project.
- **Mercer Island Trade Company** - Mercer Trade Inc. strives to positively, socially, and sustainably impact our local and global communities through international trade and social entrepreneurship. Students for the Advancement of Global Entrepreneurship—SAGE—is a global community of teenage entrepreneurs sharing a common purpose: to make the world a better place. Mercer Trade has been involved in the SAGE business competition over the past several years. The company competes with other student driven companies that are motivated by social benefit. This year Mercer Island HS will be sending one or two team to UC Berkeley the first weekend of June for a competition. Additionally, through a partnership with The Sophia Way, Mercer Trade Inc. has been donating portions of proceeds from sales, and volunteer time at events such as their annual auction, which recently raised over \$40,000. The Sophia Way is a women's homeless shelter in Bellevue, Washington, and this organization provides resources for homeless adult women to find immediate relief as well as to get back on their feet.

- **August Wilson Drama Monologue** - Drama 1 high school students, as part of their curriculum, memorized and performed an August Wilson monologue working with a guest artist from the Seattle Repertory Theatre who shared about August Wilson and his legacy. Some of the students will compete in the Seattle August Wilson Monologue Competition this February at the Seattle Repertory Theatre, extending their learning and taking a risk in a new environment.
- **HS Unified Basketball Team** - One of our 10th grade HS students started a Unified Basketball Club for students with disabilities to partner with general education students to play basketball competitively with neighboring schools in Seattle. As a unified team all members learn teamwork and critical thinking skills and hand eye coordination beyond the traditional classroom. At the recent championship event for the season, parents, staff and cheerleaders enjoyed supporting our team which placed first.