The Globaloria Program at EACPA
Student Case Studies
2009-2010

In this anthology, readers will encounter the stories of six sixth-grade students who participated in Globaloria classes at the East Austin College Prep Academy (EACPA) in Texas. These students were part of the very first cohort to attend EACPA.

Each student comes from a community with a history of poverty and lack of opportunity, yet every story is unique. These cases were selected to reflect the diversity of personalities and talents of the students participating in Globaloria at EACPA and reveal more about each student through their own words and observations by their educators, peers and researchers. These case studies represent students' first steps along this journey of becoming STEM learners and teachers, with Globaloria

The Globaloria program at EACPA was launched in 2009 in collaboration with AMD Foundation and Southwest Key to model the complete integration of a required, daily, multi-year, game-making class for all students every year. Using the Globaloria platform, network and curriculum, EACPA students conceive and develop social-issue and STEM-focused games around curricular objectives where they are struggling the most.

The mutual goal is to transform the way economically-disadvantaged students encounter STEM content, by engaging all students in computational thinking using a systematic approach to problem solving that enhances science, technology, engineering and mathematics (STEM) learning.

In 2009-2010, Pilot Year 1, 84 sixth grade students, including 44 girls and 40 boys, used the AMD Computer Laboratory to engage in Globaloria learning 90-minutes a day, 5-days a week, throughout the entire school year. Students were supported by one lead educator and two support educators, as well as experts from the World Wide Workshop staff and wider Globaloria community.

TABLE OF CONTENTS

Juan: Igniting the Drive to Improve

JUAN

Exciting,Conceding,Fun

Son of Jesus and Leticia

Who loves soccer,mom, and dad

Who feels he needs to improve

*Who needs to get a good education
Z_____*

Text: Juan's 'bio poem', written in October, 2009, for an English/Language Arts assignment. Original spelling and spacing has been retained. These poems also hang in frames on the walls in EACPA hallways.

Image taken from video shot by Andrew Watson, in April, 2010.

Juan is a middle school student from East Austin, and attends East Austin College Prep Academy. He is a strong student but faces some challenges. He attended elementary school at one of the least successful schools in Texas. His schooling up to this point has failed to provide him with a lot of opportunity for critical thought and self directed learning. From Juan's story, we can learn a lot about how Globaloria offers something different for students who are hungry for learning.

Juan is in a focus group of students, participating in formative research. Therefore, researchers have had an opportunity to talk with him one on one about his thoughts about learning. In one interview, Juan described his learning with technology in elementary school. He said it was nothing like Globaloria, because "we would just go to a website in the computer lab." His implication is that he is ready for more. As Juan writes in his autobiographical poem, featured at the beginning of this piece, he 'feels he needs to improve,' and that he 'needs to get a good education'.

Juan looks to Globaloria to provide a way to improve. His enthusiasm for technology is eloquently expressed in his early blog posts, excerpted here:
Monday, September 14, 2009 Here in techonolgy class I am looking forward to create my own games. I hope everyone will like my game. I want to combine my game with soccer and math. I think tech class is the best class in this school. I can't wait to create my game.

Wednesday, October 21, 2009 **I feel great here technology class. I'm glad that post anything on our blogs and everyone can see it, and by everyone I mean EVERYONE as in anybody in the world. I learned how to add a picture, a video, and a hyperlink. That's so cool. I can't even wait until we start creating our games. I can't find anything pressuring with this class. This is the easiest and best class ever! I wish I didn't have to go to any of the other classes and just stay here in tech for the whole day.**

As the class moves forward and begins to design their games, Juan's teachers devise a strategy to use data to integrate Globaloria with math. By pre-testing students, the educators established which area within the sixth grade math curriculum that each student needs the most work. Juan is assigned to a group working on Geometry and Spatial Relationships. Juan's score was 43% for that objective, which was dramatically lower than his scores in other areas. A month or so later, when surveyed about his assigned Math Objective, Juan writes:

My math objective is number 3 and I really am starting to understand what's the deal with shapes

Researchers who observe in the Globaloria classroom have documented Juan's continuing interest in technology. He is a serious student, usually quiet and very focused during instruction. During a one on one interview, a researcher asked him to describe one thing that he had learned so far in Globaloria. His response was "Learning to use game design. And doing the code- that's what I like. I think that's important." These comments reflect a high level of engagement. In a mid-year written survey, he was asked the most important things he had learned so far in Globaloria. His responses were

> *'1. Work hard 2. There are many more things to do on the computer than just games   3. Follow directions'*

While visiting EACPA, videographer Andrew Watson captured a typical day for Juan in Globaloria class. Juan's team, Tech Tigers, was hard at work on their game, Recycle Man. In the image included here, Juan is busy and undistracted the activity in the lab around him. This reflects researchers' observations of Juan: Some days he may be appear to be off task, but his version off task aligns with the mission of Globaloria- he spends time teaching himself more about technology, finding new ways to solve a problem. In the words of his Math teacher, in a December progress report:

> *He is a quiet superstar!*

Throughout the year, in fact, Juan has shown dramatic growth in his ability to figure things out on his own, often quietly**.** Globaloria provides opportunities for growth in problem solving that

frequently don't exist in other parts of a traditional curriculum. When Juan maintains his daily Learning Log and blogs about his Globaloria learning, he engages in reflection on his own thoughts and learning processes, Thus, Juan has grown in his ability to reflect on his own learning. His belief that it is important to 'follow directions' is now accompanied by a growing confidence in his ability to find information and resources to support his learning. In Juan's case, he is also confident in his ability to lead others.

Juan's team, the Tech Tigers, received first place for their game demo in the Globey Awards competition, judged mainly by AMD employees. The Tech Tigers' game demo demonstrated a high level of attention to detail, and was presented with a great deal of enthusiasm. Juan's team was also honored for a list of other accomplishments, including Best Presentation, Best Flash Files, and second place for Best Prototype Video and Best Math Integration. The collaboration and synergistic work of Juan and his team members were evidence of the 21st century skills they acquired, while the Flash work they incorporated into their demo illustrated their digital media competencies.

Juan reflected back on which resources helped him the most in Globaloria class in a written survey taken May 2010. He wrote that he learned most by *interacting with the educators in the class, by completing assignments, from the Globaloria video tutorials he used*. He also listed other resources that he used, which included *books* and *tutorials he found online on his own*, outside of class, to help him learn more about the class. This is surprising when you consider that he has relatively limited time outside of school to explore, given the long school day for EACPA students. It is a striking illustration of Juan's growth in self-directed learning, and figuring things out on his own, moving away from waiting for instruction. Globaloria provided him with a situation where he was encouraged to be creative and think independently, and he rose to the occasion.

One final strong statement about Juan's success in this first year of Globaloria is his significant improvement on the Geometry and Spatial Reasoning. This was the objective where Juan needed to improve. His final TAKS score on this objective was 100%.

By the end of Juan's first year at EACPA, it is clear that he is one of the strongest students in the Globaloria classroom. This is a conclusion reached by observing him in class, looking at his work, listening to his thoughts about learning and himself. Because of World Wide Workshop's continuing partnership with EACPA, we will learn even more about how Globaloria has an impact on Juan and his drive to improve.
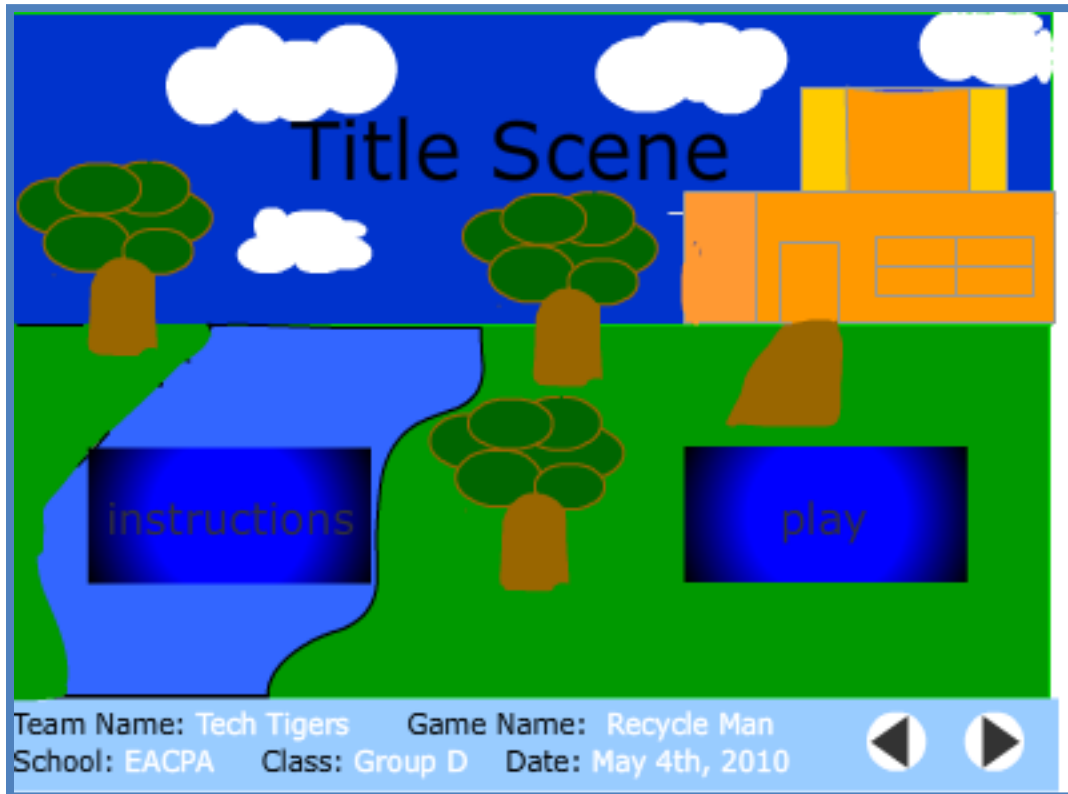
You can see a presentation made by Juan's team, the Tech Tigers at:
http://www.viddler.com/explore/globaloria/videos/13/
Juan's Globaloria blog:
http://juanz2016.blogspot.com/
Juan's Project Page on the wiki:

Title Scene

instructions

play

Team Name: Tech Tigers   Game Name: Recycle Man
School: EACPA   Class: Group D   Date: May 4th, 2010

Vivian: Reaching for the Sky

VIVIAN
Geek, Passionate, Stubborn, Joyful
Daughter of Janie and John
Who Loves Family, Animals, Soccer
Who Feels Laughter, Care, Pain, Adored
Who Needs Peace, Sleep, Love, Achievement
Who Wonders Why?, How?, When?, Who?, What?
Who Fears Snakes, The Dark
Who Likes Being around friends, Reading, Animals,
Soccer
Who Believes The Sky is the Limit
Who Dreams To become a Veterinarian and a
Professional Soccer Player
[last name]

Text above: Vivian's 'bio poem', written in October of 2009 for an English/Language Arts assignment. Original spelling and spacing has been retained. These poems also hang in frames on the walls in EACPA hallways.

Vivian is a truly dedicated learner and she believes that 'the sky is the limit.' She pays close attention to details but also has an unusually perceptive view of the world. Vivian attended a charter elementary school and has thus far been very supported in her academic life. The lead Globaloria educator wrote, in her first progress report:

> *"Vivian is a proven leader. She takes time out of her personal time to work with other students that are behind in class. She even stays after school. Students really look to her as a leader and she is able to get through to those students that other wise slack off in class. She is like my personal assistant. Star Student."*

It is not just the educators who view Vivian as a leader, she clearly sees herself that way as do her classmates, as evidenced in the learning interaction segmented below from January 2010:

> *Vivian's voice is louder than most other voices in class, calling out instructions like*
> "Go to Library!"

> Ms. Miller: Vivian and I also figured out how to make it move left to the right.

> *Immediately, several students in the class start calling her over, requesting help.*

While a model student, Vivian has been known to become restless when the typical curriculum runs out of challenges for her. She is a student who benefits from something that will make her

stretch as a student and keep her engaged. In her own words, Globaloria at EACPA has provided her with more challenges along with support for meeting them, pushing her to grow as a student.

In an interview with Dr. Alex Games, a Globaloria research partner from Michigan State University, Vivian reflects on the multi-faceted challenge that Globaloria presents for her.

Dr. Games: How is Globaloria going?

Vivian: Globaloria is a complicated subject. Not only because it's technology, modern technology, trying to keep up with it, but it's just the process of doing the learning logs, and the Flash, the prototypes, the ideas, it's just complicated. And now having to work in teams, it's just complicated, because you can't just make up your mind, you have to get the team's ok.

Dr. Games: What do you like the best about Globaloria?

Vivian: Figuring out the codes. I love that part.

Globaloria offered new experiences in many forms for Vivian, giving her new opportunities to rise to the challenge. Designing her game concept using a social issue was one such challenge, which she embraced thoughtfully. When asked the deceptively simple question" What makes your game a game?" this was Vivian's response:

It is learning at the end of the game, but trying to hide the place of the learning. The activities kind of weave into the different obstacles- that's how I know it is a game.

Surprisingly, despite how confident she appears in most areas, Vivian dislikes addressing a group, so when asked what was the most difficult thing about Globaloria, she said, "*Speaking is the most difficult because sometimes I get really shy in front of small or large crowds.*" The team's presentation of its Globaloria game demo at the end of the year presented a particular challenge for Vivian. The ultimate accountability of performance before a real audience led to anxiety but also an increased level of engagement for Vivian later in the year. When asked what makes Globaloria different from other classes, she said:

This class involves more hands on things, this class helps with speech skills, and helps develop a passion for challenges.

Globaloria offers an opportunity for Vivian to stay engaged despite outside pressures to be less visible. In coming years, we will have an opportunity to learn more about how Globaloria projects provide opportunities for Vivian, and other students, to continue to express themselves in new and interesting ways. With Globaloria, the sky is the limit.

Peer review comments from a classmate on Vivian's work

Vivian's 'My Projects' Page:
5/5 (organization)
5/5 (Lots of files or assignments)
5/5 (personality shows on their page- it's creative)
Comments: It is creative. She does good drawings, and imagination

Vivian's Blog:
5/5 (interesting/fun to read)
5/5 (spelling/grammar)
5/5 (images and page design)
5/5 (lots of posts)
Comments:
They're long and creative

In Globaloria I have learned alot of useful things such as... One, learning how to control and master Wiki/MyGlife Two, learning the basic tools and codes of Flash Three, learning how to work way more coopertively and skillfully

-quote from Vivian, 6th grade student

Iliana: Finding New Confidence to Succeed
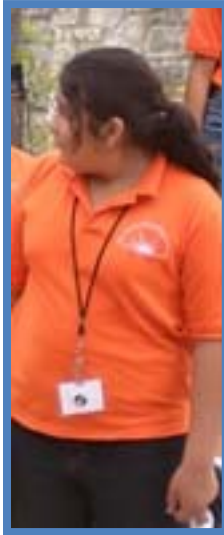
Iliana

I'm happy because i love to be happy.

Esmeralda,Rosario,Alfonso,

Cindy,Heidi,Erica,Alejandra,Elena,Gaby.Fernando,FERNANDO,Edgar,Daniela, Nathalia,veto,Juan,Valeria,Rosalia,Pedro

Mom,dad,sister

I feels like I'm thaw the spacial won at my family. [I feel like I'm the special one in my family]

I needs help my math

I wander if my sister was a boyfriend.

I fears at MY SISTER

I like my Friends if their were mi sister. [I like my friends as if they were my sister]

I believe thaw my Friends or my friends.

Mv self i dream at mv FUTURE

Text above: Iliana's 'bio poem', written in October of 2009 for an English/Language Arts assignment. Original spelling and spacing has been retained. These poems also hang in frames on the walls in EACPA hallways.

Iliana began sixth grade like many EACPA students, with previous education at an elementary school that provided her with limited opportunities for success. However, unlike many of her peers, Iliana had two additional challenges that threatened academic success overall, and in Globaloria specifically: She is still learning to speak and write in English and she had some fears about using technology:

> *Monday, September 14, 2009 I what to learn about how making games.my teacher ms.miller shows how to create a blog and she is staring to shows how to make games.In I'm scared of thaw computer because y thing thaw something can pop and scare my. [I'm scared of the computer because I think that something can pop up and scare me.]*

As this case study shows, however, after a year of participating in Globaloria Iliana saw technology as her favorite subject. Globaloria became her favorite class, and she gained confidence that would help her in all her classes. Here is Iliana's story.

In the summer before her first year at EACPA, pre-testing and assessment by EACPA educators determined that Iliana, like many of her peers, needed to focus on math skills in order to reach grade level. Becoming proficient in math class however, would present a particular struggle for Iliana because reading is vitally important in math comprehension. At times, she held back in class and was not able to participate actively. Globaloria researchers who observed her in her

sixth grade math class noted Iliana's lack of participation and apparent disinterest in what was happening in class. This was most likely due, at least in part, to language barrier, combined with a lack of confidence in the subject matter.

In Globaloria class, observers noted that the collaborative nature of the class helped Iliana stay engaged. It also provided her with an opportunity to both get help from Spanish speaking peers when she was confused, and to give similar support to other Spanish speaking students. This collaboration resulted in increased confidence and engagement. Ms. Miller, the lead Globaloria educator, wrote in a progress report:

> Iliana struggles some what with the language barrier. Spanish is her first language. I will have someone translate for her and she is able to keep up in the classroom with assignments and task. Iliana is also willing to help others that are having the same problem.

During January, the Globaloria class was divided into groups, and each group worked as a team to design and begin to develop their game. Iliana joined the team the Belly Floppers, and had the role of updating the wiki for the team. Globaloria instruction was given in English but her team leader spoke Spanish, and the team members were able to move back and forth between English and Spanish as they collaborated. Some of Iliana's early work on paper for the team project is included here, below.

Over the course of the first year in Globaloria, there was a dramatic change in one area of Iliana's learning experience: she became more confident about using technology. Her blog illustrates this: it explodes with multi-media applications all of which Iliana installed on the blog herself, including Haley the Virtual Horse Pet, Paris the Panda, the Virtual Aquarium, and several Mario related widgets. See an illustration of some of Iliana's pets, below.

Her blog postings, such as this entry for English Language Arts in February 2010, reflected her increased enjoyment of technology:

> **I'm doing good at globoloria.I'm forward to learned more at glaboloria and do my best at globolaria. My concept is going good and my game idea is to do my best at the game and in I'm exited of my game because is my frist game ever of me life.**
> [last sentence above: I'm excited of my game because it is my first game ever of my life.]

During a one-on-one interview in April, Iliana discussed some of the reasons she likes Globaloria. She talked about her interest in working with video: learning how to post video to her blog was meaningful, and led her to become more excited about learning other things that she could do using technology. Iliana described her ambition to become "one of the people who reads the news." She made a connection between the media and what she does in Globaloria, and how the things she is learning with technology will help her achieve her goals.

As the year ended, Iliana's team, the Belly Floppers, was selected as a finalist in the Globey Awards Competition, a multi-faceted review process designed to recognize the best game demos developed among Globloria student teams at EACPA. Iliana's role in the development of her team's demo was relatively small, possibly due to her limited language skills, but she was proud of her role as the wiki-updater for the team. This honor gave her a feeling of accomplishment with technology. Most importantly, through her experience in Globaloria, Iliana changed from someone who is "scared of the computers" to someone who wrote on her post-course survey, that she both

> *enjoys doing digital design projects from beginning to end "very much"*

and

> *often searches online to find answers when she needs help with a project.*

In her final blog post for English Language Arts class, she wrote on an assigned topic what she likes and doesn't like about school. She wrote:

> *…And in my fave class Is technology because whe do like flash and like and they wiki*
> *[My favorite class is technology/Globaloria because we do Flash and the wiki]*

All students completed a written survey at the end of their first year in Globaloria. In Iliana's post-course survey, she writes:

> *i think i like flash alot but i nead help.*

Iliana's progress during the year demonstrates the power of Globaloria to ignite passion in students, even those who are hesitant to engage with technology and collaboration. It will be fascinating to observe, in coming years, how Iliana's excitement about Globaloria will grow and change, and how it will connect her to a bright future.

Below: some of her Iliana's writing from early in the process of creating a game with the Belly Floppers, and some of the virtual pets who live on her blog.
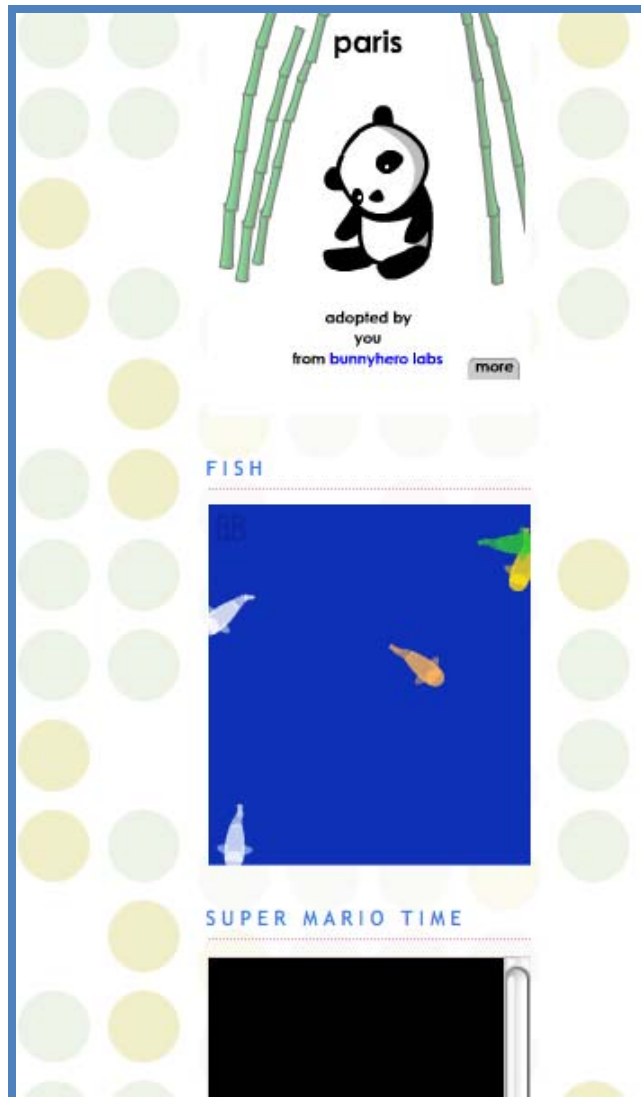
what does your game teach? what can someone learn by playing it?

they can learn to be healthie and make Raltn Disisious of food and if they make the Disisensor to eat eorg they can get fat they can lern by Doing tne Ralth thing and ealing well like vegies, fruits, and Healthie things, And I think if you Do it you'll bo it.

2. My Game it will be Unite And Popular, and it will sale alot becase kitscare feyt in arley kid will learn alot

James: Expressing very big ideas

JAMES
I like to play the piano, I like to play basket ball, and I like to play with my dogs,
Who love mother, father, and everybody in my family,
Who feels important to my family,
Who needs a baby something,
Who wonders about my future,
Who fears hights,
Who likes family nights when we play games,
Who believes in good education,
Who dreames to be the best father in the world,
[last name]

Text above: James' 'bio poem', written in October of 2009 for an English/Language Arts assignment. Original spelling and spacing has been retained. These poems also hang in frames on the walls in EACPA hallways.

James is earnest and quietly focused in Globaloria and his other classes. He has a strong respect for education and an idealistic view of the world. Before coming to EACPA, he lacked a way to express his ideas. He can be reserved and has to overcome that to reach out and share. In Globaloria, he discovered new tools and opportunities to express himself and his vision clearly and to an audience and community – helping him achieve the goals he aspires to.

Here is what James says in his first blog post:

> *I want to make a well... positive contribution for the whole world rather than just my community*

James is usually very quiet. At times it seems that he is watching the class with amusement. In fact, his blog posts reveal a sense of humor that he doesn't always show to the everyday world as well as a wealth of insights and creative ideas. Globaloria allowed him to immediately begin to express himself. He writes on his blog in September:

> *What I have in my head is so awsome I can't hardly bear it.*

Please see James' posts, below, for a glimpse at the evolution of his ideas about how to change the world.

> *October 7, 2009 blog post First of all I would like the world to be cleaner than what it is way better than what it is, next I plan to cut out smoking, less use of gas, oil, coal, and other natural resource. because if we keep spreading these habits to generation, to*

generation, we won't have smart young people any more, we won't have nature any more, then we wont have clean air any more,then we won't have the future that most people plan. and what is that is a clean future no mire gangs, and no more graffiti, no more power plants, no more pollution coming from pricey gas guzzlers that burn fuel and make even more pollution, and more [hybrid cars](), more solar panels, more Eco friendly things that is what we need for a healthier, safer environment. I plan to accomplish this by spreading this massage and start doing the things my self and setting an example to people, and protesting. I will die trying or not do it at all. I really think I should have a goal and a plan and a goal because, I would know what my standards are and expectations.

and

November 12, 2009 KYAC is the name of my game. My project's concept is to show why it is important to keep the air clean and pollution free. It talks about how to keep the air clean and how to keep your car's exhaust systems clean. My goal for the game is to convince people to drive more hybrids and less standards/gas cars. I will have to research how much air pollution goes into the air per hour {The percentage, and ratios}. I will do all I can to make the game more realistic.I plan to make the people talk and really move with the mouse and arrows, and other cool stuff. :D

In October, he also writes on his technology blog:

When I come to technology I feel great about it. Because it's the only time I can have to express my self and type

For James, Globaloria was an opportunity to develop skills he was already passionate about. He has tried to make games at home, on his own, using tools that he says he has 'downloaded on the Internet', but has never been able to start on a project on his own. As he says, the games he has made on his own 'sort of faded away'. In Globaloria, he is making his ideas reality and taking on a leadership role to make it happen. He is the leader of his team and working very hard on the game that grew out of his idea. His passion to learn and progress has also empowered him to collaborate with other members of his class, helping his peers learn and understand. His educator wrote on a progress report:

DATE Q3 Comments: He continues to be a hard worker and willing spirit. He enjoys helping other in the class that me be struggling and is consistently on task. James has understood most assignments and has worked hard on mastering all skills.

His enthusiasm has extended in other areas James' language arts educator notes that he often runs out of time when working on a blog post, because he has more ideas that he wants to share.

He has also grown in his technical knowledge and skills and is much more comfortable with collaborating and sharing his ideas with the world than he once was. He has had the experience of success in an area where he had never been willing to venture- taking his ideas and making them visible. Doing so has given him a new comfort level which frees him to become more creative.

At the end of the year, he reflects that he enjoyed Globaloria more than he expected. He says "Compared to what I thought it was going to be like….I thought it was going to be hard and I would be stressed out, but it turns out that it's really fun! I had a good time [in Globaloria]. When you figure out how to do something, you are all excited and happy!"

James is looking forward to improving his skills and taking games and learning into his future. He hopes to study music and become a person who works with computers, and Globaloria is helping him to get there.

Ethan: New Motivation for Learning
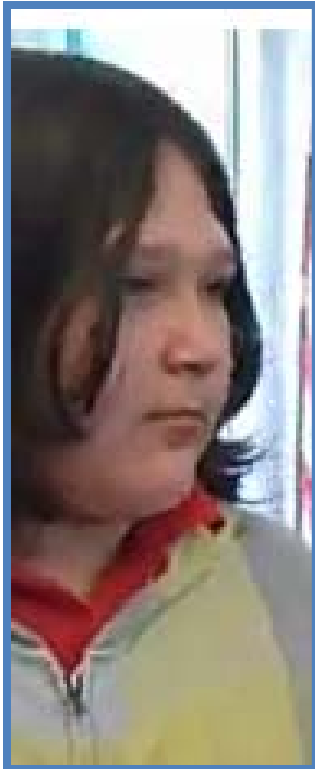
ETHAN
Cool,funny,smart
Son Of Ethan and Maria
Computers,Friends,Parents
Feels Awesome
Needs A Lab top
Why Is the sky
Fears of plane
Likes Technology
Believes that I can succeed
Dreams to fly

_____

Text left: Ethan's 'bio poem', written in October of 2009 for an English/Language Arts assignment. Original spelling and spacing has been retained. These poems also hang in frames on the walls in EACPA hallways.

Like most students at EACPA, Ethan came to middle school from a low performing elementary school. At the beginning of the year, educators at EACPA conducted diagnostic pre-tests to evaluate where students were in terms of grade level proficiency, in English and Math, using the Texas state standards. The results showed Ethan to be behind academically–with a score of 37 % performance on the overall Mathematics Texas Assessment of Knowledge and Skills (TAKS) 6th grade level expectations, and as low as 14% on the subject related to Geometry. In his autobiographical poem, above, Ethan writes that he "believes that [he] can succeed," but until 6th grade and starting Globaloria, he had few opportunities to feel successful in academic settings. Globaloria provided Ethan with an alternative to drill and practice and playing catch up- giving him powerful motivation to learn and improve.

As a student at EACPA, Ethan has worked hard to change the course of his education. He attended Saturday tutoring sessions for math and language arts. He also received small group help during the school day to catch up on his Math and English proficiency. While important, these experiences did not necessarily fit with Ethan's learning style. This is why Globaloria is a special learning opportunity for him. It is the class where he does not have to catch up, and where he is confident of his potential from the start; in Globaloria, Ethan is doing what he loves to do, and what he is good at. And he is having great success.

Ethan is a very social student. He has a good sense of humor and a lot of curiosity. He expresses some of this curiosity in his first post to his Globaloria blog (original spelling and capitalization retained):

> I would also like to learn about what gives a computer viruses, because when i grow up I would invent more models of computers so other people can buy and enjoy at home.I wonder what the future will be like....

His Globaloria educator writes in a progress report that Ethan gets his assignments done, despite messing around a lot with his friends. His habit of laughing with friends gets in the way of learning at times, but he formed a productive connection with teammates, and enjoyed the sharing that goes with peer collaboration. His ability to 'get along with everyone', to borrow from his self-description, makes him a good team member.

Through the course of the year in Globaloria class, Ethan also became even more confident about his abilities with technology, and about what he could offer to his team. Globaloria is a class where he is in his element, not striving to make up ground. In his first videotaped group presentation, he simply states, "I'm the Flash expert, because I'm good at Flash". [link to Spaghetti and Meatballs paper prototype here, not to be published online]

Globaloria at EACPA has also had an impact on other parts of Ethan's learning life. During the year, Ethan's Language Arts teacher wrote that he is a good writer and shows great use of multimedia. His blog stands out, with a recognizable voice. Blogging, especially about technology, in Globaloria has helped Ethan increase his enthusiasm about writing, shown in longer, more complex blog posts. Ethan's Math educator writes:

> Ethan has a great blog when it comes to aesthetics and blogging seems to be a better way for him to engage in metacognitive learning than using pencil and paper.

 The following is an excerpt from a blog post from mid-way in the school year [original spelling and spacing retained]. This post illustrates some of self-reflection about learning.

Friday, 22 January 2010

[Character Traits]

I am like a kid who does his work and _{achieves} his goals and still has friends to talk to. He's not like super freaking smart but you know he's one of those kids who does work so his

parents would be proud of him. …. . Most of my friends like to laugh a lot and that's because of me most of my friends think I am funny. So each week I make up some jokes with them.

For Ethan, who says he spends hours playing video games on the weekends, Globaloria is not like the rest of his classes. It is one class where he is <u>not</u> striving to catch up. In Globaloria, he learned to create multimedia, and interacted with Flash, familiar to him from his Internet experience. His friendly and social personality was an asset instead of getting in the way of learning: in class, he was frequently seen talking about ideas for great effects in the game he is making, or working one on one or with a team member on an illustration for their game. Sometimes he did both at once. Globaloria gave him an opportunity to use his graphic design skills and learn doing what he liked to do.

In an interactive interview during April, Ethan demonstrated his ability to employ Flash methodology to mimic a game application. This was a big improvement over his performance on the same task in an interview just months earlier. This mini-experiment offered clear evidence that Ethan was beginning to learn new skills in Globaloria, while also learning new ways of thinking about problems.

Just as blogging has led to increased interest and thoughtfulness in his writing, game design has led to increased interest in mathematics for Ethan, if only by association. His team, Spaghetti and Meatballs, developed a game entitled "Poverty in the World." which incorporated his assigned TAKS math objective, Objective 3, Geometry and Spatial Reasoning. Ethan was directly involved with coming up with ideas for how the game would incorporate math into the game play.

At the end of the year, the Spaghetti and Meatballs demo received a *Globey* Award for high quality graphic design. In his written post-course survey, Ethan wrote that he is still *very interested* in the subject of his game, and that he wants to be a '*computer mechanic*' when he gets older. The thing he enjoyed most about Globaloria: *programming in Flash*.

Ethan's performance on his specific assigned TAKS objective, Objective 3, has been remarkable: his performance on Geometry and Spatial Reasoning [Objective 3] was 14% proficiency in the pre-test and he scored 100% on the same objective on the TAKS administered in April. He ends the year with satisfaction with what he has accomplished. About learning in Flash, he writes *Well most of our game looks pretty good with everything in it*.

Ethan's experienced in his first year of Globaloria demonstrated the transformative nature of Globaloria. He showed growth in many areas because of the integration of technology and creativity into his learning experience. He is engaged in learning, and heading towards a career in a STEM related field.

ACTION GAME.... CALIFORNIA:)

WE WILL HAVE A MAP OF WERE WE ARE AT YOU HAVE TO PICK UP ALL THE TRASH IN CALIFORNIA AND FIND FOOD TO GIVE TO THE PEOPLE WHO ARE STARVING AND DONT HAVE A HOME.THERE ARE ALSO GOING TO BE LIKE RED OR GREEN OF DOTS ON THE MAP.THE LEVELS WILL LOSE 10 SECONDS EVERY LEVEL.YOU START OFF WITH 2 MINUTES AND YOU WILL HAVE A LITTLE CAR TO HELP YOU GET THE FOOD FASTER.THE MATH WILL COME IN WHEN THE GAME FIRST STARTS THEIR WILL BE 2 CHARTS AND THEY WILL SHOW YOU HOW MUCH FOOD AND TRASH YOU HAVE PICKED UP IN TOTAL.

LEVEL1
LEVEL2
LEVEL3 LEVEL4
LEVEL5

←CALIFORNIA MAP

You may choose a car

Above, some of Ethan's work on the Spaghetti and Meatballs game.

Paul: Becoming Visible as a Learner in Globaloria

My is Paul
I like to play in computer,wash cars and play soccer.
Son of family of dad.
I MY family i love dad,mom and sitters.
I feel happy.
I need money for my life and college.
Who wonders if I go to college.
I have fears in moves.
I like pizza.
I believes if Igo to college.
My dreams are to go college.
My last name is
#

Text: Paul's 'bio poem', written in October, 2009, for an English/Language Arts assignment. Original spelling and spacing has been retained. These poems also hang in frames on the walls in EACPA hallways. Photo taken June, 2010

Paul is a quiet student. He often stays in the background, observing everything that is going on but rarely saying much. His reticence in the classroom has meant, in the past, that he doesn't get the attention he needs, and essentially slips through the cracks. Paul is a student who is quietly struggling to overcome obstacles. Participation in Globaloria has given him a new tool for becoming visible, and in the process, getting the support he needs to move forward.

Paul's performance on Texas Assessment of Knowledge and Skills (TAKS) pre-testing at the beginning of the year painted a picture of a student with capabilities in some areas, and deep deficits in others. For example, his pre-test assessment showed that he was working at only 10% proficiency on TAKS Objective 1: Numbers, Operation, and Quantitative Reasoning, and yet had an overall score on the math TAKS of 59%.

At the beginning of the year, Paul was both a bit nervous and very excited about the idea of making a game in the Globaloria class. He wrote on his blog on September 14:

I'm exited[excited] to make games and to learn.
I'm happy and make my own game and to people or kids play the game.
I'm worried that the game don't go to the computer or Internet Windows.
I will tried my best to won that compition. [competition]

In October, Paul expressed more of his concerns and fears. He uses the blog to ask for help, while remaining in the background in class:

The things that are hard to me is write and to look in online and it is hard to me.

The things that is in wiki is hard to me so Mrs.Miller I need help of put more things.

I need more time for put more things and I like of the class is play games.

As part of the research that World Wide Workshop undertook at EACPA, Paul met with Dr. Alex Games, a research partner from Michigan State University. Paul participated in two interactive interview sessions, one near the beginning of the year, and one at the end. During both interviews Paul's answers were limited to a few words, but he did share emphatically that he loves to play games.

AG: Do you use computers anywhere else except Globaloria, or do you usually just use them in Globaloria?

P: I use them wherever

AG: You use them wherever? Do you go to the library?

P: yeah

AG: Do you just play with the computers at the library? yeah? what do you usually do in the library when you play?

P: play games.

Because Paul is such a quiet student who shares little about his comprehension levels, or lack thereof, he is often at risk of being overlooked by his teachers and falling behind. In Globaloria, Paul found blogging and wiki updating a comfortable way to communicate without having to speak up or push himself into the spotlight. His blog and wiki provided valuable insights to his educators, for whom Paul had been a bit of a mystery in the past.

What I learned this week:
I lear in this week is flash is to make a game.
Flash is to make a game ….. i like to make some games.
So if you like to make a game is hard so go to class of computer.
Making a game is hard.

During the spring, Paul began to focus intently on game design. As the Flash designer for his group, Visions of the Future, Paul had responsibility for creating Flash animations, making his learning, and his successes, clearly visible. He talks about the game in his own words [in text box below]. His Globaloria educator wrote on a progress report:

Q3 Comments: Paul has made substantial improvements these last six weeks. He has really been focused and has managed to stay on task.

During the spring, he worked hard with his team to develop a game idea demo that focused on the area where his pre-test showed him to need the most support: Objective 1: Numbers, Operation, and Quantitative Reasoning. In March, he wrote about what he was learning in this process on his Globaloria blog:

Thursday, March 25, 2010

What we learn on this week? We learn this week how to make a button and more

things we learn. Flash is to is that is hard because theirs a lot of steps in flash
…..I keep doing my best in flash and I get it right but is a lot.

In his second interactive interview with Dr. Games, he showed a lot of improvement in his ability to solve problems and his mastery of Flash, Actionscript and other game design skills. His vocabulary of Flash and Actionscript-related terms had increased significantly and he was able to start building a game using Flash independently. As Paul became more comfortable with his grasp of these concepts he also became more expressive, illustrated by longer, more comprehensible blog posts and increased classroom participation. His English-Language Arts educator writes on her final progress report that while he still struggles with writing, he has shown some improvement. An example of his writing, where he demonstrates an improved ability to communicate, appears directly below.

Save The Rainforest
1] My game topic is to save the rainforest.
2]Is to people to know that the rainforest is important for the planet.
3]The game is to peolple know that the game is important to people not cut trees.4]My goal for the game is to people save the trees and save the rainforest.5]The game give you information of how much
trees are kill in the rainforets in a year.
6]I will desing my game the up and down left and right and space.7]Iwill do my game good and to people don't cut teers.

While Paul's scores on the final administration of the TAKS (high stakes) test were disappointing: he did not pass the Reading section, and did not improve sufficiently to pass his overall Math TAKS, his work in Globaloria did result in a particularly marked improvement on his Globaloria-assigned math objective, Objective 1, with his score going from 10 to 20 percent. This suggests that his passion for games and technology, coupled with the Globaloria platform, curriculum and hands-on approach to learning led Paul to greater success and deeper learning.

Below, Paul's game description that he created using Flash.

On my game it wiil have questions of frations. And if you geit right and you wiil scard the people that are killing the trees. And you can pick a gril or a boy and each question you have it right you wil have 10 points if you have it wrong 10 points back. The gaol is to make 200 points and you have 2 minetes on the 2 levels. AND THE FRATIONS IT GET MORE HARD ON EACH LEVELS AND THE MOVES ARE THE 1-2-3…… 20 AND THE + TING AND THE SPACE TO PUT THE ANSRED AND , each questions and you SCAED THE PERSON YOU WILL HAVE ONE POINT.