

WorldWideWorkshop

**A BLUEPRINT FOR LEARNING AND LEADERSHIP IN THE 21ST CENTURY:
TRANSFORMING EDUCATION GLOBALLY THROUGH THE GLOBALORIA LEARNING NETWORK**

TEXAS

WEST VIRGINIA

2009-2010
ANNUAL REPORT

"Globaloria is helping us become not only consumers of the technology we are working on, but also inventors and producers of it. I feel like we are leaders of the nation."
Alexandra, 10th grade



A Letter from Dr. Idit Harel Caperton Founder, President and Chairman of the Board World Wide Workshop Foundation

In building and distributing the Globaloria learning network that is the focus of this report, the World Wide Workshop seeks to both extend and enhance the education opportunity so essential to today's students. Our aim is not just to help every young person in America become digitally literate and proficient in the core STEM disciplines of science, technology, engineering, and mathematics. We seek also to set young minds on fire, igniting that love of learning that will harness the opportunity of education for a lifetime.

As this report makes clear, we are succeeding. To our teams on the ground in West Virginia, Texas, and elsewhere, to the researchers tracking our impact, to the partners helping make it all possible, I want to say congratulations and thank you for a job well done. Like all pioneers, we continue to be confronted by challenges and obstacles, but we figure out solutions in real-time and forge onward. I am proud to work with all of you in helping transform education to ensure a better, brighter future for our youth who will soon live, work and lead the global innovation economy.

Idit Harel Caperton



Idit Harel Caperton

A Letter from Gayle C. Manchin* First Lady of West Virginia Globaloria-WV Advisory Board Co-Chair

Globaloria has now become an integral part of West Virginia's educational landscape. Always at the forefront of educational innovation, West Virginia is particularly proud to be serving as a laboratory for advancing the skills of digital literacy and STEM learning so essential to the future of our children and our nation as a whole.

Governor Manchin and I, along with the students and educators who are making Globaloria their own, hope to see Globaloria expand—first to every school in our state, then to every state in the nation—as the country follows our lead to 21st-century learning.

That expansion is a task the Governor and I will take with us to Washington, where serving US Senator Manchin and I will continue our fight to end the national education crisis.

Gayle C. Manchin



Gayle C. Manchin

Our work is made possible through funding and partnership with state government, corporations, individuals, and public, private and corporate foundations:



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Knight Foundation

AMD
Foundation
Changing the Game



A Letter from Dr. Steven L. Paine*
West Virginia Superintendent of Schools
Globaloria WV Advisory Board Member

Long an educational innovator, our state was one of the first in the nation to bring 21st-century learning skills to our schools. In my estimation, Globaloria has been particularly successful in advancing those skills and the STEM learning of our students; it represents a strong model for moving us forward on this path.

I've witnessed it time and again: Kids who are difficult to reach in the traditional classroom become engaged in learning when they do it through this non-traditional educational innovation. Globaloria simply makes kids go deeper, and when they do, they find all sorts of strengths.

I am looking forward to another year of transformation through Globaloria and to making the network a West Virginia-owned, West Virginia-operated educational intervention that can be replicated across our state and then around the nation.

Steven L. Paine



Steven L. Paine

A Letter from Dr. Juan Sanchez
Founder and President of Southwest Key Programs
Founding Board Chair, East Austin College Prep Academy (EACPA)

At Southwest Key, we believe that to change lives, you must invest in the community, and that begins with education. Our new charter school, the East Austin College Prep Academy, EACPA, is all about transforming a community that has long been educationally underserved. We began the transformation by setting the highest standards of excellence for our students and expecting the best results from them. That is why we partnered with the World Wide Workshop to bring Globaloria to all of our students as a core component of our daily curriculum.

Globaloria lets students target those areas where they struggle the most, while enabling them to tap into creative potential many did not even know they possessed. And it is igniting in them a love of self-learning that can enrich their lives forever.

Globaloria is the kind of educational transformation we need in our schools, and we believe it is providing a road-map for how to change the game of education in the 21st-century. We are proud to be the change we want to see.

Juan I. Sanchez



Juan Sanchez

* Note: As this report goes to print, Mrs. Gayle Manchin transitioned with her husband, Joe Manchin III, to Washington DC where he is now serving as US Senator (WV). Dr. Steve Paine retired, and Dr. Joreia Marple, former WVDE Deputy Superintendent, is the newly appointed State Superintendent of Schools in WV.





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Important URLs

www.worldwideworkshop.org | www.globaloria.org | www.globaloria.org/wv | www.globaloria.org/tx

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The Globaloria Learning Formula: Project-Based, Student Centered, Social Learning



“Globaloria can be replicated anywhere, in any educational context. It is a package containing all the needed digital platforms—for students, educators, administrators, researchers, and the public—as well as all curricular content, tools, training, and support. Customized to local needs, Globaloria can be easily expanded in scale and sustained over time as circumstances change.”

–Dr. Idit Harel Caperton, Founder and President, World Wide Workshop Foundation



Introduction: Globaloria 2009-2010

The World Wide Workshop Foundation is a global, non-profit educational organization committed to providing today's young people the tools they need for economic success and civic leadership in the 21st century—namely, access to and proficiency in computer technology and social networking. Toward that objective, we have built and are today implementing the Globaloria learning network that is the subject of this report.

As you will read in the pages that follow, Globaloria is simultaneously a social network for learning and an engine of educational reform. It changes the equation of how we teach and how we learn and addresses urgent needs in our current educational system:

- the need for competence in the new digital literacy that is the language of social networking,
- the need for basic understanding of the STEM disciplines of science, technology, engineering, and mathematics,
- the need for skills in critical analysis and problem-solving, and
- the need for co-learning through collaboration across social networks.

Targeting economically disadvantaged and technologically underserved public school systems—in both rural and urban settings, across a range of school contexts from charter schools to alternative education, and from middle school through college—Globaloria uses a hybrid model, both online and on-site, that constitutes a more effective formula for learning than students have hitherto experienced. With Globaloria, they learn by doing, gaining digital skills and content knowledge by creating their own web games—typically concerning a subject of social interest or civic topicality, or in a discipline of the core curriculum.

Launched five years ago, the Globaloria learning network is at work today in a variety of real-world laboratories that together reflect the diversity of our educational system. This report focuses on two laboratories—statewide in West Virginia and school-wide in a new charter school in East Austin, Texas, East Austin College Prep Academy (EACPA). The idea is a simple one: If Globaloria can succeed in effecting change in these different laboratories, it can do so anywhere.

As the report demonstrates, it is succeeding. Five years on, students engaged in the Globaloria network are learning more and learning more deeply, educators are changing the way they teach, and schools in some of the most underserved communities in America are being transformed. In 2010, in what might be called 'The Year of Social Networking,' when the transformative power and pervasive influence of Facebook, Twitter, and the like were so much talked about, it is clear that Globaloria has been responsible for perhaps the most profound transformation there is—setting minds on fire to learn skills and stretch creative abilities in ways that speak directly to nationwide needs and national priorities.



Globaloria empowers educational leaders—a key to long-term, widespread education reform. Shown here: WV principals and superintendents with Dr. Idit Harel Caperton, First Lady Gayle Manchin, and WVDE Deputy Superintendent Dr. Jorea Marple.

“...Education is no longer just a pathway to opportunity--it is a prerequisite.”
– President Barack Obamaⁱ



A rigorous professional development program trains educators to teach through collaboration and facilitation —Globaloria-style.

Students learn to work together and individually using the Globaloria network, curriculum, and suite of digital media tools.



Students' original game creations become open-source learning and teaching tools that inspire others to dig deeper and go farther.

"Globaloria provides evidence of a student's effectiveness in using a tool— using Web2.o tools—to be able to create products that verify the student has an in-depth understanding of a STEM concept."
– Dr. Jorea Marple, Deputy Superintendent, West Virginia Department of Education

What is Globaloria?

Globaloria is a social network for learning that serves as a model for education reform in any community, anywhere, at any time. It transforms the traditional classroom—one teacher at the front of the room facing a diverse group of students and trying to inculcate into these different minds the uniform material from a textbook—into a digital collaborative. In this transformed classroom, each student is engaged in following his or her individual bent, learning by doing and learning through play.

At the core of the network is a comprehensive and customizable curriculum for learning how to design, program, and publish educational web games. In doing so, working both in teams and individually, students become digitally literate, participate in networks, and of course research and understand the educational content of the game they are creating. Globaloria steeps students in the computer science and engineering practices that are the fabric of 21st-century life, while they learn the habits of problem-solving and critical analysis that are essential in any century.

Globaloria also transforms teachers and teaching. Through rigorous professional development programs, educators learn to support a different kind of learning that brings rewarding benefits to both themselves and their students.



Students dedicate more than five hours per week—the time spent on a core curriculum class—to completing the Globaloria game-design curriculum and developing skills critical for success.



Educators are empowered to support a technology-enabled and network-based educational transformation in their classrooms.

“Globaloria is a way of learning how to learn. As students plan, design, and build games, they practice computational thinking and software design; develop skills in creating and using digital media; learn to interact, share information, and collaborate with others; and exercise their minds in critical thinking and problem-solving. In short, they’re readying themselves for 21st-century citizenship.”

—Dr. Idit Harel Caperton, Founder and President, World Wide Workshop Foundation

How Does It Work?

Globaloria has been structured to instill six Contemporary Learning Abilities (6CLAs) in young students—abilities essential to the “success in college and the workplace” that Secretary Duncan speaks about:

Globaloria's Six Contemporary Learning Abilities (6CLAs) with Technology

1. The ability to invent, work through, and complete an original digital project for an educational web game or interactive stimulation
2. The ability to manage a project online in a wiki-based networked environment
3. The ability to create digital media artifacts using wikis, blogs, and websites and to publish and distribute these artifacts online
4. The ability for social-based learning, participation, and exchange across age groups and levels of expertise in a networked environment
5. The ability to use information as a learning tool, to search for information purposefully, and to explore information
6. The ability to surf websites and experiment with web applications and tools

Globaloria is unique among educational digital literacy initiatives in that it is the first program to delineate and prioritize the most complex Constructionist activities.

The process for instilling these six abilities is based in Constructionist principles of learning-by-doing. Driving the Globaloria methodology are ten specific principles:

10 Principles for Integrating Social Game Production into Education the Globaloria Way

1. Learn by creating functional and representational educational games
2. Master complex subjects and social issues by constructing pedagogical games for others
3. Work on open-ended and creative design tasks on topics of choice
4. Learn in a transparent, collaborative studio setting where work is jointly constructed and shared
5. Spend significant time on a task by engaging daily in year-long, project-based learning
6. Have ample opportunities for social expression and discussion about game projects
7. Have ample time for self-learning and reflection about games, wikis, blogs, and presentations
8. Use programming and computational design tools as primary constructs and modes of learning
9. Use multiple modalities in the learning process—i.e., text, imagery, audio, video, simulation
10. Learn alongside educators and from experts, on demand

Globaloria is demonstrating a model for teaching and learning that has the power to transform our entire education system.

“The 6CLAs are guiding the design of our platform tools, online curriculum and professional development activities. In the real world of work these abilities are crucial for success. It is exciting to develop a learning platform that can help students and educators emerge as capable workers and leaders in creative knowledge industries.”

– Shannon Sullivan, Vice President of Programs and Production, World Wide Workshop Foundation



The Technology of Globaloria

Globaloria uses open-source software for its online network and learning platform, thus avoiding dependency on third-party licensing costs. Based on the same flexible technology that powers one of the most deployed frameworks on the internet, Wikipedia, Globaloria also uses Google resources and capabilities, including Blogger, and YouTube, adapted for schools that may lack advanced technology. The hybrid model developed by our technical team—both online and on-site—means that under-resourced schools have access to virtual expertise not available locally. The platform is hosted on a dedicated server at a tier-3 data center.

The focus on open-source practices enables collaboration with the global developer community for future enhancements and for customization to diverse cultures and languages. It also makes it possible to expand the user community from thousands to millions—a capability strengthened by the fact that the platform is assembled as a set of loosely coupled service components.

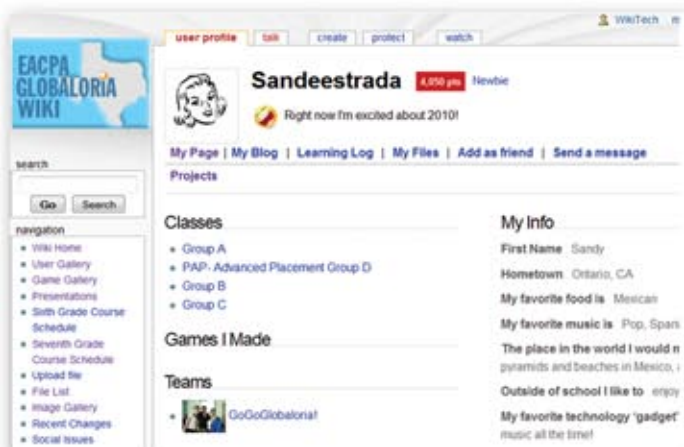
Students “enter” Globaloria through computers using a Mac or Windows operating system and, ideally, a broadband connection to the internet, although 3G access is also supported. A browser compatible with HTML4 is required, as is Adobe Flash to create and edit games. Other programming languages—Python, JavaScript, HTML5, etc.—are planned for the future as student and educator capabilities advance.

The back-end data storage engine is built with a MySQL relational database, which is well suited to the students’ transactional needs and capable of being mined for usage data by our custom-built reporting tool. The team can thus react early and effectively to refine students’ experience on the platform and keep them equipped with all the capabilities they need for learning.

The backbone of Globaloria is its underlying technology—dynamic, continually updated, always ready to respond in real-time to the learning needs of its community.



Students use industry-standard tools to prototype, program, and publish their original web games.



Educators are empowered to support a technology-enabled and network-based educational transformation in their classrooms.

The Globaloria.org Network

The Globaloria.org network is structured as six interconnected platforms. Three support both independent and collaborative learning for students and educators:

- a **school learning platform** enabling individuals and teams to work through the comprehensive, step-by-step, self-paced Globaloria curriculum;
- a shared knowledge platform of **network-wide resources** to which students and educators contribute—customizing, reshaping, and adding content—and where they connect with and receive support from experts;
- a **professional development platform** on which educators do their training and self-learning, share resources and best practices, and connect as members of a learning community.

Three other platforms serve the information and data management needs of the Foundation team and of administrators, researchers, and the public:

- a **research and results platform** providing current Globaloria research results and program information for public review and offering data and communication tools for researchers and the Foundation development team;
- a **data management platform** collecting, organizing, and mining data about Globaloria participants, the program experience, and program products;
- a **network account administration platform** enabling the Foundation team to develop and run the other five platforms, manage participant accounts, and develop platform functionality and content.

See pages 11-14 for a schematic description of the six interconnected platforms.

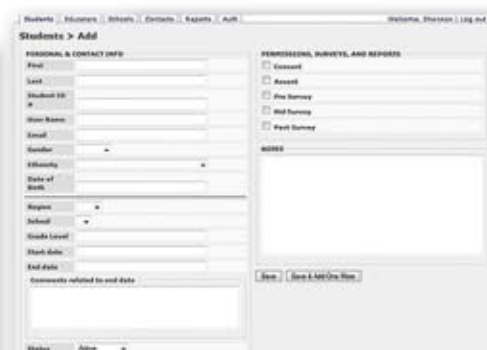
Globaloria offers not just a curriculum but also an implementation model for education reform in a variety of contexts and on any scale.



Educators self-learn, create and post their own digital work, share resources, and connect as members of a community on the professional development platform.



Students use a school-specific learning platform to learn game-design via the Globaloria curriculum.



The database management platform facilitates the collection, organization, and mining of data for both operations and research.



The Globaloria.org Six Interconnecting Platforms

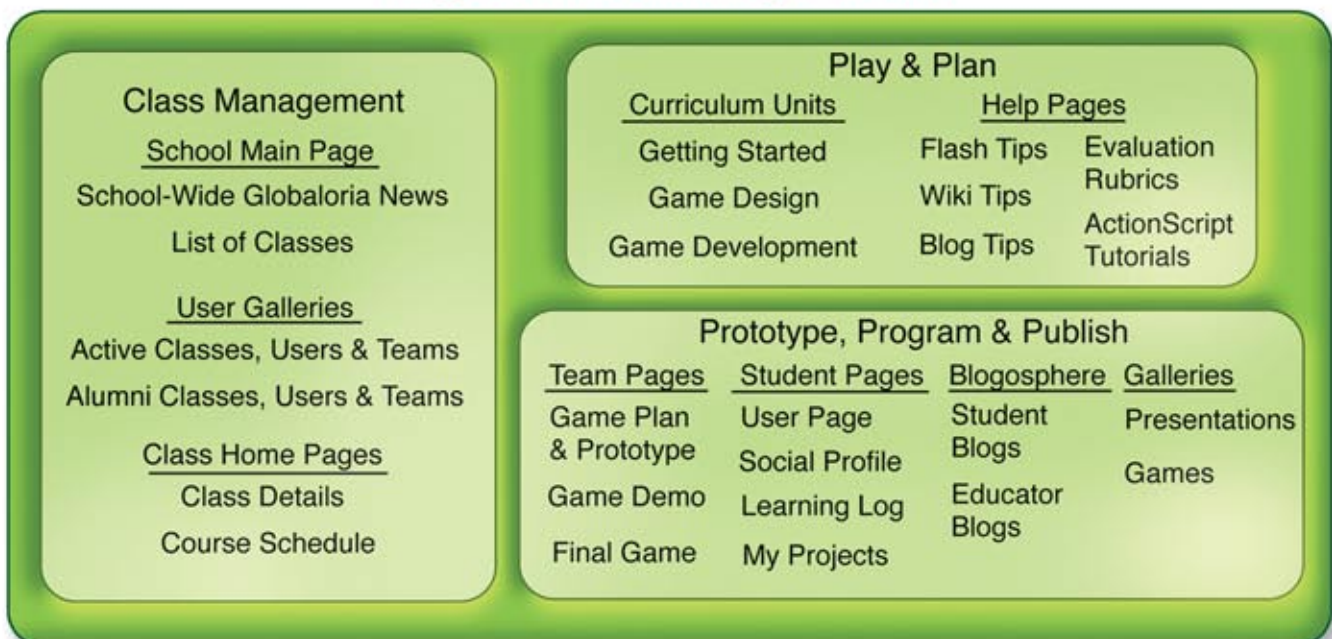
1. Professional Development Platform

Target Users: Educators, Mentors, Interns



2. School Learning Platform

Target Users: Students, Educators



3. Network-Wide Resources Platform

Target Users: Students, Educators



4. Research and Results Platform

Target Users: Research Scientists, Team, the Public





5. Data Management Platform

Target Users: Educators, Team, Researchers

School Learning Data

Teaching & Learning Progress Reports

Student Progress
Curriculum Standards Alignment
Peer Review

Participant Profiles

Demographic Data
Participation Details
Wiki Usage Stats

Participant Digital Assets

Videos
Game Files
Image Files
Blogs
Learning Logs

Network-Wide Resources Data

Featured Student Work

Help Desk Content

Curriculum

Game Topic Resources

Competitions

Video Tutorials

Research Data

Research Interview Videos
Photos

Consent & Assent Forms
Pre-, Mid-, & Post-Course Surveys

Professional Development Data

Educator Data

Teaching & Learning Progress Reports
Educator Learning Logs
Educator Blogs

Mentor Data

Mentor Reports
Globaloria Educator Blog

Intern Data

Intern Data Logs
Globaloria Spotlight Blog



6. Network Account Administration Platform

Target Users: Foundation Team

Participant Account Management

Students

Email & Blog
(Google App Accounts,
@globaloria.org)

School Wiki User
Accounts

Educators

Email, Calendar & Blog
(Google App Accounts,
@globaloria.org)

School & Educator's Wiki
User Accounts (Admin Level)

Progress Report Site

Mentors

Mentors Office Site

Educator Community Blog
(one Blogger account, multiple
contributors)

Interns

Interns Office Site

Globaloria Spotlight Blog
(one Tumblr account, multiple
contributors)

Production Team Account Management

Research & Results Platform

Video Channels Admin
(YouTube, TeacherTube, Viddler)

Participant Database (Private)

Program Info, Partners & Team
(Joomla)

Photo Channel Admin (Flickr)

Network-Wide Resources Platform

Globaloria Central (wiki)

Globaloria Spotlight
(one Tumblr, multiple contributors)

Resource Website (custom site)

GlobaloriaGames.org
(custom site, Google Forms)

School Learning Platform

School Learning Platform Template (Mwiki)

Functionality Test Environment (Testwiki)

Professional Development Platform

Progress Report Site Admin (Google site)

Mentors Site Admin (Google site)

Interns Site Admin (Google site)

Educator Community Blog (Blogger)

Educators Bulletin (Mail Chimp)

Hosting

Production Documentation Archive (Twiki)

Server Access (ServInt)

FTP Access

Workshop Emails (@worldwideworkshop.org)

Group Mailing Lists (managed via MailMan)



Globaloria in Action: The West Virginia and EACPA Implementation Laboratories

The 2009-2010 academic year was pilot year 3 for the statewide West Virginia pilot, Globaloria WV, and pilot year 1 for the school-wide pilot in a new charter school, the East Austin College Prep Academy, Globaloria at EACPA. Both pilots serve particularly poor and underserved communities.

The two laboratories drew on the lessons of five years of experience in implementing the Globaloria model. Both have succeeded in achieving substantive progress. The success has been consistent across a diversity of contexts and demonstrates the flexibility of the model and its capacity for sustainable expansion.

On the educational front, preliminary research and all anecdotal evidence indicate that Globaloria achieves its learning goals:

1. Student self-learning using Globaloria inculcates the six contemporary learning abilities (6CLAs), teaches digital literacy, and develops proficiency in STEM disciplines—science, technology, engineering, mathematics.
2. Students learn critical analysis, problem-solving, collaboration, and co-learning.
3. In creating content, students learn how to do research, assess information, and recognize objectivity and credibility; they become cognizant of their roles as digital citizens responsible for their own civic literacy.
4. Globaloria students perform better on traditional academic metrics, including standardized tests, than non-Globaloria students.
5. In what appears an indication of its viral potential, Globaloria learning is showing a positive impact on performance in other classes and disciplines.
6. Globaloria is particularly effective at engaging girls and low-performing students in technology and technology-based learning.
7. Annual game-design competitions with high-level support inspire students to delve more deeply into their learning and improve performance.
8. Globaloria stimulates educators to learn new competencies, forge a new and more effective teaching style, and provide students more support.



Globaloria WV and EACPA present replicable models for education reform in two educational contexts—a statewide public school system and school-wide across a charter school—that are widespread across the country.

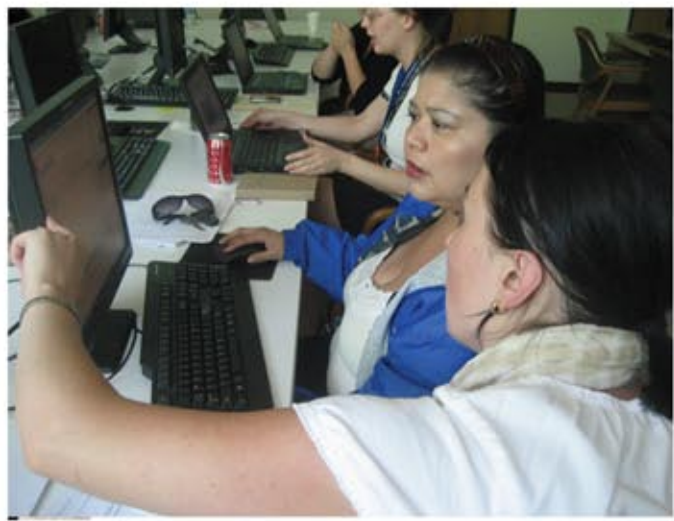


In functional terms, the two laboratories have demonstrated that:

1. The implementation model works in diverse educational and administrative contexts and is adaptable to specific local needs.
2. The model works well in technologically underserved communities and among students and educators who consider themselves “technologically challenged.”
3. The curriculum can be integrated into the traditional core curriculum or can serve as an enrichment curriculum appropriate to varied core content areas.
4. The network and underlying technology are readily
 - expandable in scale and scope.
 - transferable to local control. “Buy-in” by the educational and political leadership in both pilot contexts has been dramatic, as local leaders have invested in and taken ownership of “their” Globaloria network.
 - customizable for use in any school, community, district, or state with the will, vision, time commitment and available infrastructure.
5. The network lends itself to multi-party support partnerships, with local school authorities, non-profits, and corporate sponsors all playing a role and all reaping rewards.
6. Globaloria responds directly to the nation’s current educational needs and to the vision of educational reform advocated by education leaders, as demonstrated by the wide recognition of Globaloria at the local and national levels.



Ninety minutes of Globaloria learning a day advances STEM learning, especially among low-income, English language learners and girls.



Educators from across the network work together to forge a new and more effective teaching style. Shown here: Ingrida Barker from Globaloria WV mentoring Globaloria EACPA educators.

“Today’s youth are tomorrow’s leaders. AMD Changing the Game and Globaloria share a goal of using technology, and particularly game development, to harness students’ curiosity and creativity, boost their confidence, enrich their educational experience and expand their global awareness.”

– Allyson Peerman, President, AMD Foundation

Highlights of the Year 2009-2010

- Globaloria WV more than doubled in size to 577 students, 48 learning groups, 33 educators, 22 schools, 22 principals, and 13 superintendents...
- A school-wide Globaloria implementation model was launched at the East Austin College Prep Academy, EACPA, a charter school in Austin, Texas; all 84 sixth graders used Globaloria daily to enhance their STEM skills...
- Additional administrative and financial support was committed by the West Virginia Department of Education (WVDE) in preparation for the statewide adoption of Globaloria by the end of 2012...
- The capacity of the unique Globaloria professional development program was expanded with tailored in-person and virtual trainings, and with new opportunities for leadership and ownership among more educators...
- Superintendents and principals—so critical to the system-wide adoption of Globaloria—assumed greater responsibility for the network's expansion, sustainability, and success...
- A civics track was added to the Globaloria WV platform and a Globaloria Civics Game Design Competition was launched, co-chaired by former U.S. Supreme Court Justice, Sandra Day O'Connor; 44 middle- and high-school students created 43 civics-focused games, and 144 students gained civics literacy...

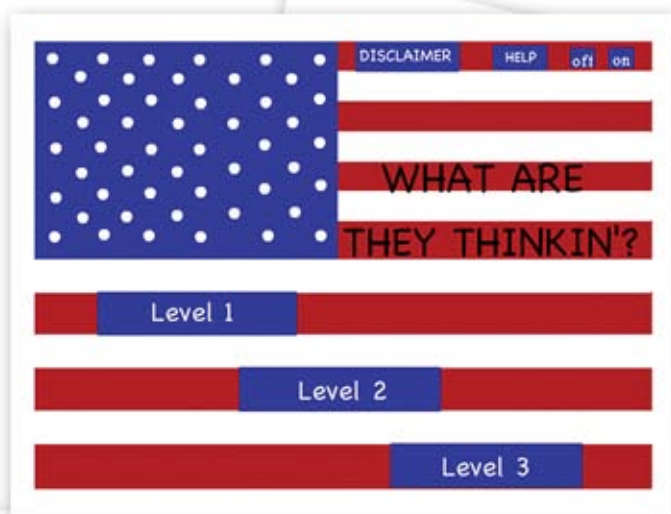


Globaloria at EACPA offers a new model for school-wide, cross-curricular STEM learning in a charter school environment.

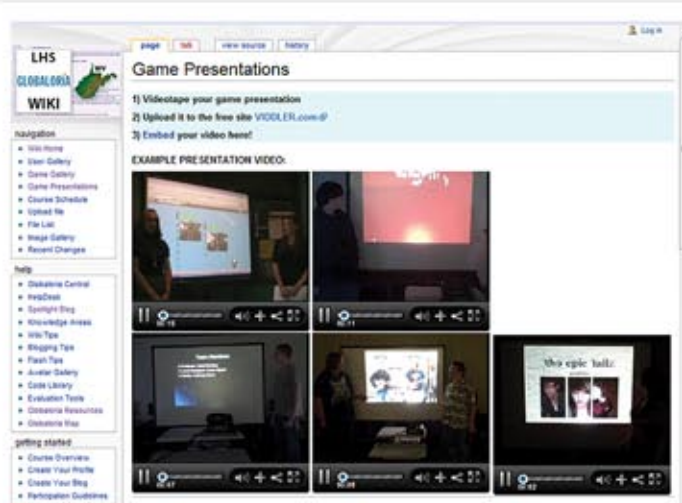


Across the Globaloria network, educators benefited from 200-plus hours of in-person and virtual training and self-learning. Shown here: Globaloria mentor educator, Patrick Smith, training pilot year 3 educators.

- The Globaloria STEM Game Design Competition, co-chaired by Senator Jay Rockefeller, was launched in West Virginia, enhancing national visibility and inspiring greater numbers of students to focus on STEM learning...
- The Globey Awards were instituted at EACPA, honoring student excellence in game design and STEM skills...
- Early research offered evidence that Globaloria students perform significantly better on standardized science and social studies subtests, score moderately higher on five out of six assessment measures—including tests, grades, and grade-point average—and achieve higher completion rates than their peers; this superior performance is particularly notable among girls...
- Advances in the platform and curriculum kept Globaloria on the cutting edge of responsiveness to students' needs...
- Preliminary research indicated that Globaloria educators significantly changed their teaching styles to be more collaborative, open, and transparent—in both Globaloria and non-Globaloria classes...
- Funding increased through greater support from existing funders and through the addition of new funders...
- Globaloria achieved greater national visibility and attention through press coverage, conferences, and published research...



144 WV students gained literacy in civics and current events through the newly launched Globaloria Civics Track and Game Design Competition.



2009-10 focused on the enhancement of already well developed and tested platforms and tools, and the year-long game-design curriculum.

Mind on Fire: Kegan, 8th grade: Technology, STEM Learning, and Girls



Kegan

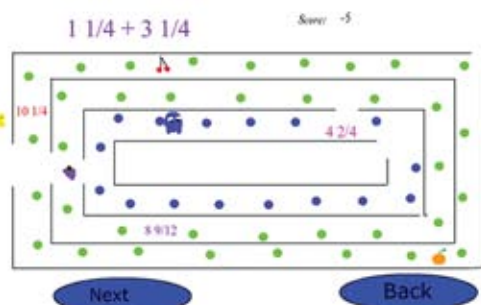
"I want to learn how to make my game better than last year's by learning all I can from my wiki page. I would like to make my game about problems I had when I was younger in class. I would really like to make the game focused towards upcoming sixth graders to help them when they first get to middle school. But I want the game to be focused on their math journey because that's what I had the biggest problem with."

Despite her confident smile, 13-year-old Kegan, an eighth-grader at Sandy River Middle School, betrayed a little bit of anxiety about *Fracman*, the game she was developing along with Frosted Loops team members Bobby and Nathan. The game was aimed at teaching fractions to elementary school students, and as team manager, Kegan was concerned from the get-go about how well it would engage its young audience. Like many girls confronting technological processes, she was also a bit shy about sharing her own technical work-in-progress with others. Her first reaction was to take on the overall team management responsibilities while trying to keep her team members on-task and on-target in their technical roles as Flash coder and graphic designer.

As the semester progressed and *Fracman* developed, however, Kegan became more confident both in her group and in her own abilities. She grew comfortable assigning responsibility to the others while shifting her own role from that of group manager to group coder. By the game's final presentation, she had become the primary ActionScript coder for her team.

Her frustrations with Globaloria's self-learning eased too. In the early going, she had found the non-traditional approach "confusing." At the same time, she was baffled—and disappointed—by what she saw as her teammates' unwillingness to learn the full range of Globaloria practices, not just those specific to their initially chosen roles. But she persevered, putting in extra time at home and networking with peers in other classes and schools. As she mastered self-learning, Kegan also mastered the six contemporary learning abilities that are the main mission of Globaloria.

And her early anxiety crumbled in the face of her own achievements.



Fracman, Kegan's educational math game for elementary students.

Globaloria West Virginia: A Statewide Implementation Story

Introduced in West Virginia in 2007 as an enrichment class or after-school initiative, Globaloria has increasingly become part of the daily curriculum. Its expansion from just seven schools to 22, including middle schools, high schools, community colleges, and alternative schools, shows the model's scalability and adaptability across the learning lifecycle. Positioned to be a statewide learning network by 2012, year 5 of the pilot, it will then be adopted statewide by the WVDE.

Globaloria's success to date is very much a product of three factors:

1. A social network that successfully translates a learning theory into concrete results.
2. The empowerment of the community of learners and educators to transform their own teaching and learning practices.
3. The strong partnerships forged with the WV policy and education leadership, administrators, educators, and students.

"Globaloria's flexibility and adaptability to a variety of disciplines and educational settings make it a remarkably innovative resource for addressing West Virginia's 21st Century Learning objectives. For the Benedum Foundation, Globaloria has been a very good investment in educational improvement."

– James V. Denova, PhD, Vice President, Benedum Foundation



In pilot year 3, Globaloria in WV doubled in size to 22 middle schools, high schools, alternative schools and community colleges across West Virginia.



Integrating Globaloria into core curriculum subjects—like biology at Capital High School—offers the potential to improve test scores, assessments, engagement, and self-confidence; and position the network as part of the formal school system.



Globaloria West Virginia: What Happened in 2009-2010

1. Network Size Doubled

The doubling in size over pilot year 2 also represented a 600 percent expansion over pilot year 1. Significantly, nearly all the schools that started the pilot in year 1 continued their participation. Substantive expansion was seen at the high school level and among alternative education programs for at-risk youth.

Girls comprised more than 35 percent of Globaloria WV participants, a striking percentage for a technology-based program in which, typically, girls tend to be represented at less than 25 percent of the total.ⁱⁱ

2. Learning Expanded

STEM

Students created a total of 221 games using STEM skills during the academic year. Nearly half of these games focused directly on STEM topics; more than three quarters of them were created through teamwork. Statistically, the year saw a jump in mastery of Web2.0 skills, with some 61,000 wiki edits, nearly 20,000 files uploaded, and some 13,500 blog entries posted. The launch of the Globaloria STEM Game Design Competition, chaired by U.S. Senator Jay Rockefeller, gave new electricity to the STEM focus and established Globaloria's STEM credentials on the national stage.

Civics

Funded by the Knight Foundation and in collaboration with iCivics, the new Globaloria Civics Track, comprising a support website, civics-specific resources, and civics-oriented blog prompts, was added to the curriculum. Nine educators and 144 students from seven schools—middle schools, high schools, and one alternative school—worked to create 43 civics-focused games. Added impetus came from the launch of the first annual Globaloria Civics Game Design Competition, chaired by former Supreme Court Justice Sandra Day O'Connor.

	Pilot Year 1	Pilot Year 2	Pilot Year 3
Total Game Projects Created	30	95	221
Student Games by Focus			
Games on Core Curriculum Topics (spelling, mathematics, science, financial management)	13 (43%)	36 (38%)	106 (48%)
Games on Global Social Issues (climate change, pollution, poverty, health, complex life choices, community)	8 (27%)	48 (51%)	46 (21%)
Entertainment Games (no curricular content)	9 (30%)	11 (12%)	69 (31%)
Student Games Focusing on STEM and Civics			
STEM Games			93 (42%)
Civics Games			43 (19%)
Individual vs. Team Games			
Total Games made by an Individual	13 (43%)	51 (54%)	59 (27%)
Total Games made by a Team	17 (57%)	44 (46%)	162 (73%)



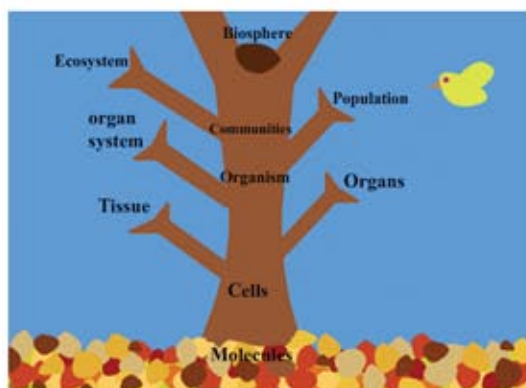
3. Greater Student Achievement

The percentage of students completing Globaloria courses reached 93 percent, with all classes offered for a grade or credit and as part of the school day—no after-school classes. Eight educators integrated Globaloria into 16 core classes in biology, computer arts, drafting/architecture, English, and mathematics. Globaloria has taken hold.

The upsurge in digital skills corresponds to performance achievements and is especially positive in areas where students struggle the most. Globaloria students performed better on the 2009 science and social studies WESTEST2 subtests, the state's standardized student performance tests, than did their non-Globaloria counterparts, while holding steady with those counterparts on math and reading or language arts subtests. While correlation is not causation, the WESTEST2 results are in accord with preliminary research by Marshall University showing Globaloria students scoring moderately higher on five of six assessment measures than non-Globaloria learners—three unit tests, course average, and course grade.

4. Enhanced Platform and Curriculum

A mini-game project was launched to introduce students to the Flash authoring tool and to simple ActionScript coding functions, while new social profile and networking tools enabled greater online sharing. A “light” version of Globaloria was developed to help meet the special needs of alternative education students. Data collection on students, educators, and schools was enhanced as were platform support tools.



In 2009-10, students created a total of 221 games using STEM skills, nearly half of which focused directly on STEM topics.



Abby Taylor, Executive Director of iCivics, shown here with Randolph Technical Center students, collaborated to support the new Globaloria Civics Track, helping inspire students and educators to expand their civics knowledge.

“I don’t think there is any question that Globaloria can be used as a tool to enhance the teaching of mathematics and science content in West Virginia public schools.”

– Dr. Steven L Paine, Superintendent of Schools,
West Virginia Department of Education



5. Educators Supported and Empowered

Equally significant in igniting and sustaining student engagement in Globaloria is the committed involvement of educators, who increasingly endorse and feel empowered by the network. This is demonstrated in the nearly 100-percent retention rate among educators and in the depth of their involvement, which amounts to more than eight hours per week. In pilot year 3, we introduced a diversified training model to tailor the professional development experience to educator level, and we increased the available resources and support.

In preparation for transferring Globaloria to the state, we began grooming a corps of expert Globaloria educators to take on leadership responsibilities. Four of our most experienced and successful educators have been recruited as mentors and to consult on curriculum development, co-author regular blog posts, plan and lead training sessions, and support the educators at Globaloria EACPA and across WV.

At the administrative and policy levels, 20 superintendents signed memoranda of understanding with the World Wide Workshop while all principals took responsibility for recruiting more schools and ensuring adequate infrastructure. Both superintendents and principals also engaged in hands-on learning workshops and colloquia.

6. Research

An expanded group of researchers from national research institutes continued to explore the impact of Globaloria, not just on mastery of contemporary learning abilities and teacher professional development, but also on student achievement and performance, and on the relationship between game design teaching methods and Globaloria learning. Revised rubrics, coding schemes, surveys, and the development of a database management tool helped to aggregate and focus the research. Analysis of the first data from longitudinal studies, and new *Voices from the Field* mini-documentaries, showed Globaloria to have a positive preliminary impact on both students and educators.



Dr. Idit Caperton, Foundation President, Dr. Pam Whitehouse, WVU, and WVU Research Assistants presenting at the 2010 American Educational Research Association (AERA) annual meeting.



The 43 *Voices from the Field* mini-documentary videos provide a treasure trove of living case studies that inspire and highlight best practices.

7. Operation and Management

WVDE stepped up its involvement in Globaloria dramatically in pilot year 3, identifying and recruiting schools, educators, and students, and bolstering its level of support. It appointed a Globaloria-WVDE liaison and assigned a course number to the Globaloria elective—WVEIS 7692—potent evidence of the ownership to come in 2012.

In what was a difficult move necessitated by funding deficits, we delayed participation for certain schools lacking the infrastructure needed to realize Globaloria's full potential, and we turned away a few.

We recruited and trained a state director to shepherd the pilot through its final years, elevated a core of educators to leadership positions, and appointed a veteran Globaloria educator as a state manager to support the director during pilot years 4 and 5.

8. Visibility

Fifteen new *Voices from the Field* mini-documentaries, the first annual STEM and Civics Game Design Competitions, the designation of Globaloria WV as an exemplary case for the "Development of 21st Century Expertise in Learning" of the National Education Technology Plan, as well as ten research reports, ten funding proposal submissions, 16 articles in the media, staff appearances at 31 local, national, and international conferences, and new research partners from national institutions, all enhanced visibility and increased opportunities for funding and partnership.

"We understand that the long-term success of Globaloria is directly linked to the deep engagement of the educational leadership. Principals and superintendents not only provide critical support to educators, they are the key to sustainability and scaling."

– Dr. Idit Harel Caperton, President and Founder,
World Wide Workshop Foundation



WVDE has taken on increased ownership of Globaloria WV in preparation for full statewide adoption in 2012. Shown here: David Lowenstein, Globaloria WV State Director, Steve Paine, WV Superintendent of Schools, Gayle Manchin, WV First Lady, Idit Caperton, Foundation President.



Mind on Fire: Kaitlyn, 7th grade: Civic Engagement



The Fox Racers

"My partner and I chose this type of civics because we think that kids need to understand the legal system at an early age so they'll understand what really happens in a courthouse... and be prepared."

The problem with Kaitlyn, her teachers noted, wasn't intelligence. She was known to be "very smart." Rather, the problem was disengagement. This seventh grader got bored easily, then mentally opted out of the classroom. The Globaloria Civics Track changed all that.

"Teaching civics in our game was difficult," Kaitlyn wrote. "At the beginning of my research, I wondered how I could teach people about civics. Our game teaches about the seventh amendment—the right to a fair court trial. For instance, if a guy gets his yard trashed and he suspects that his neighbor did it, then he has the right to bring it to court and settle it all out. But now that we have our research and we know all the basics of civics, it is much easier to teach other people about it."

Kaitlyn and Billy, her teammate in The Fox Racers, conceived *The Race to Justice* game. Explaining how it would work, Kaitlyn wrote that, "as you go through the game, you will have to answer civics questions that will get harder as you reach the next level."

Their first task—research—substantively refined the Racers' understanding of civics in general and, in particular, of what they wanted their game to demonstrate—i.e., "what goes on in a courthouse." Aware that her web game would teach others, Kaitlyn began to think deeply about information sources and their veracity and to consider civics in terms of specific examples rather than generalities. This brought a new seriousness to her sense of responsibility as a media producer and information provider.

The resulting game, *The Race to Justice*, won the first annual Globaloria Civics Game Design Competition in June, 2010. And Kaitlyn, no longer bored or disengaged in school, won something more.



The Race to Justice won first place in the Globaloria Civics Game Design Competition.

The First Annual Globaloria Game Design Competitions

The launch of game design competitions—the first annual Globaloria STEM Game and Civics Game Design Competitions in West Virginia and the Globey Achievement Awards at EACPA—represent an innovative learning approach pioneered by the World Wide Workshop. While students often compete in games in which winning comes solely from playing, these competitions call upon them to compete in designing games; here, winning evidences superior achievement in analysis, critical thinking, creativity, and mastery of digital skills.

In reaching for this achievement, contest participants are inspired to delve deeper into their learning of both the content of their game—topics in STEM disciplines and civics—and of the technical requirements, technological capabilities, and intellectual processes needed to realize their game design. Such demands are rarely made of middle school and high school students, but when they are, they stimulate exploration and skill development students would have never thought possible.

No wonder Justice Sandra Day O'Connor's iCivics project has embraced the Civics Game Design Competition, with O'Connor acting as Honorary Chair and commending students as “pioneers” and “civic leaders.” And Senator Jay Rockefeller (D-WV) chaired the STEM Game Design Competition, asserting that it is “imperative” for students “to use this technology” to learn STEM disciplines.

The success of the Globaloria game design competitions has also provoked emulation; in the sincerest form of flattery, the National STEM Video Game Challenge (<http://www.stemchallenge.org/>), launched in 2010, follows our process-oriented competition model.



Sample competition finalists. Left to right: The Race to Justice (Civics), WV Animal Rescue Squad (STEM), Obesity Challenge (Globey).



WVDE Assistant Director Monica Beane presenting a laptop to the STEM competition winner.

“I have worked for years to make sure that our schools have the hardware and connectivity they need to engage students with innovative, cutting-edge programs like Globaloria. It is so important that we provide broadband to rural areas so that all students have equal access to this technology.”

– Senator Jay Rockefeller, Globaloria STEM Game Design Competition Honorary Chair



Globaloria West Virginia by the Numbers

Number of...	Pilot Year 1 (2007-08)	Pilot Year 2 (2008-09)	Pilot Year 3 (2009-10)
Students	86	336	577
Girls	40	130	210
Boys	46	205	367
Middle School	21	110	72
High School	47	162	345
College	12	34	72
Alternative education programs	6	30	88
Educator participants trained	25	44	68
Educators	18	21	33
Principals	7	23	22
Superintendents	n/a	n/a	13
Schools	7	13	22
Middle Schools	1	3	3
High Schools	4	7	13
Colleges	1	1	4
Alternative education programs	1	2	2
WV Counties	7	11	13
Learning groups	6	24	48
Globaloria elective	2	15	28
Integrated into subject-specific and core curriculum	0	3	16
After school groups	3	1	0
College Associates Degree (Game Design 1 & 2)	0	4	3
Student completion rate (receiving a grade or credit)	67 (75%)	287 (85%)	534 (93%)
Students participating in the Globaloria Civics Track	n/a	n/a	144
Educators participating in the Globaloria Civics Track	n/a	n/a	9

Number of...	Pilot Year 1 (2007-08)	Pilot Year 2 (2008-09)	Pilot Year 3 (2009-10)
Students participating in competitions	n/a	n/a	115
Civics	n/a	n/a	50
STEM	n/a	n/a	65
Total game projects created	30	95	221
Games on core curriculum topics	13 (43%)	36 (38%)	106 (48%)
Games on global social issues	8 (27%)	48 (51%)	46 (21%)
STEM games created	n/a	n/a	93 (42%)
Civics games created	n/a	n/a	43 (19%)
Games created in teams	17 (57%)	44 (46%)	162 (73%)
Formal student game presentations	12	17	62
Wiki edits by students	7,735	20,329	61,632
File uploads by students	1,799	6,285	19,978
Individual blog posts by students	n/a	4,225	13,581
Globaloria interns	3	5	7
Students participating in more than 62.5 hours of Globaloria learning per semester (the time required for a core curriculum course)	17 (19%)	88 (30%)	248 (43%)
Schools dedicating to Globaloria as much as or more time than to a core curriculum class	2 (29%)	6 (46%)	22 (100%)
Total educator training hours	990	1,512	7,004
Educator stipends disbursed	\$30,000	\$63,000	\$84,250
Educator mentors and consultants	0	7	8
Educator newsletter issues	n/a	26	19
Progress reports submitted	42	84	132
Surveys collected	321	695	1,189
Research reports undertaken	8	20	10
Research reports published in journals	0	3	7
Presentations at conferences and forums	15	25	31
Articles in national media	6	6	10
Video case studies and testimonials	8	22	15
Foundation newsletter issues	0	12	12
Funding secured	\$330,000	\$500,000	\$825,000



Unmet Needs and Ongoing Challenges for Globaloria West Virginia

1. Funding Deficit

Always an issue for a small entrepreneurial foundation, lack of sufficient funding in this era of recession continues to be an obstacle to progress, negatively affecting the growth of participation in the network, research and evaluation efforts, and the ultimate creation of a systematized model for replication. A deficit looming for 2010-11 will again limit us in these areas and threatens to stall expansion locally and nationally.

2. The Technology Gap

Despite strong public commitment to statewide connectivity and computing, gaps in infrastructure kept a number of new applicant schools from being eligible, forced participating schools to limit the number of students and the number of Globaloria classes offered, and required at least two schools, Kasson Middle School and Man High School, to delay their start date to spring or fall 2010.

WVDE is aware of this problem and is working closely with schools and technology directors to overcome it. In the face of across-the-board budget constraints, we must continue to appeal to state and national funders to ensure this technology advantage for WV students.

3. Scheduling and Time Challenges

Three issues in particular continued to frustrate forward progress:

1. *Lack of daily, 90-minute blocks of time for all Globaloria classes*—significant because both that amount of time and regularity of occurrence are essential for the hands-on, in-depth learning necessary for serious computing education.

Solution: Principals will be asked to sign agreements underscoring their commitments to daily, 90-minute block scheduling.

2. *Designation of Globaloria as an elective* relegates Globaloria in students' minds to a "second-choice" position in their scheduling, one in competition with other electives, and the one that must be dropped by any students in danger of failing a core curriculum course.

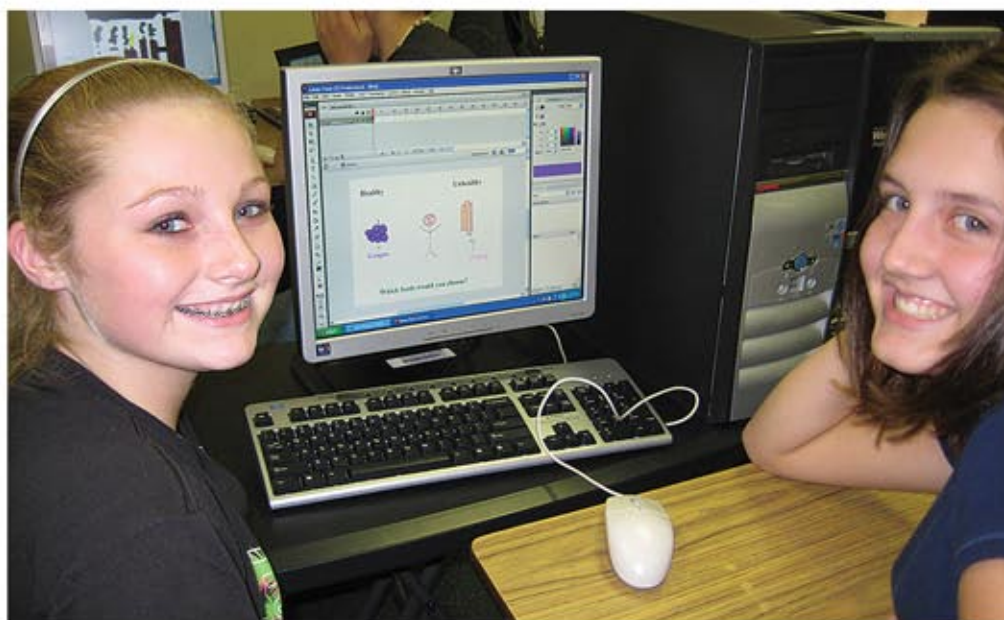
Solution: Integrate Globaloria into the core school curriculum. Endorsing this approach, WVDE will add Globaloria to the College Readiness package for high school students, will integrate it into the Next Generation Schools project, and has requested that low-performing schools be targeted for future recruitment into the Globaloria network.

3. *Educators' overburdened schedules* make it difficult to dedicate time for training, self-learning, assessment, mentoring, community engagement, reporting, dialogue, and other activities seen as needed for success.

Solution: Leverage online tools for greater flexibility in the use of time at any location, and work with principals and superintendents to help educators cope with the time crunch.

"Globaloria presents an educational model that is relevant to today's generation of students, allowing them to analyze, design and build their own web-based games to 'learn by doing.'"

—Jessica Goldfin, Journalism Program Associate, John S and James L Knight Foundation



Research indicates that the Globaloria hands-on computing curriculum inspires students – and in particular girls – to engage in and master technology, and consider STEM careers.

“A computing education provides a versatile skill set that crosses disciplines and is essential in today's innovation economy. However, the number of people graduating from college with computer or information sciences degrees has been decreasing steadily since 2004. In the U.S. in 2009, women earned 18 percent of all computer information sciences undergraduate degrees. How can we encourage more women to study computing? Different researchers have found that school leaders' encouragement and computing projects that illuminate what computing professionals actually do in their jobs are factors to help motivate students, especially girls, to pursue computing education. Globaloria uses these elements to provide a creative and fun hands-on computing curriculum that takes a new approach to teaching computer programming. It's a highly innovative school practice.”

– Lucy Sanders, CEO and Co-Founder, National Center for Women & IT



Mind on Fire: Andrew, 10th grade: Opening new Options for a Brighter Future



Andrew and his team Elite Shuffle

Fun Factor

We have four types of casino games to play.

Smart Factor

Our game will teach the negative effects of gambling. They will learn that gambling causes more problems than it solves.

Style Factor

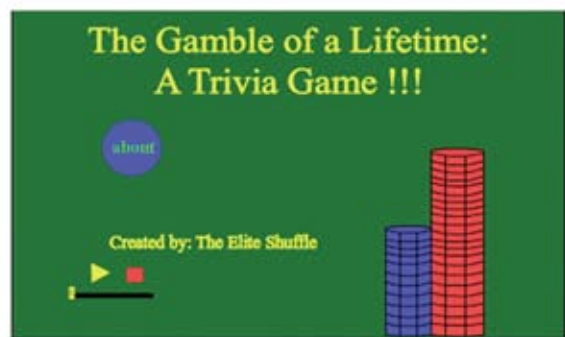
It will look like a cartoon and we will use flash. We will use some music from Sonic.

Although shy and quiet among his West Virginia peers and in the classroom, Liberty High School tenth-grader Andrew was a master at video gaming, especially at helping the hero of his favorite game, *Mega Man*, fight through the various levels of destructive forces to overcome his enemies. But despite his ability as a player, Andrew had few technology skills when he entered Globaloria in 2009-2010. And although he expressed interest in one day becoming a “video game designer” who could be part of an industry he loved, this was more a vague wish than a focused ambition.

That, and much else, would change during the course of the academic year.

Able to apply his vast knowledge of the video game industry to the technical skills he was acquiring—and vice versa, Andrew gained new confidence in what he knew and in his own ability to learn. Positive teacher evaluations confirmed both his advancing expertise and his growing confidence, and Andrew began to emerge as a leader in the classroom, becoming a supportive mentor to his classroom peers and shedding much of his shyness along the way. As his perspective about gaming widened, so did Andrew’s sense of his own career possibilities; by the end of the Globaloria course, he pronounced himself “still interested in a career as a game designer” but also intrigued by the idea of “becoming a teacher.”

Engaged by Globaloria in a way school had not engaged him before, Andrew has advanced beyond game consumption to game production. He is scoring better on science and social studies standardized tests, as per a study comparing Globaloria and non-Globaloria students.ⁱⁱⁱ And, based on post-program case studies,^{iv} has begun to explore new visions for his future, and has clearly gained a love of learning that he wants to pass on to others and that can nourish him for a lifetime.



Andrew’s final game, *The Gamble of a Lifetime*; he was the interactive designer.

Globaloria West Virginia: 2010-2011 Goals

2010-2011, pilot year 4 for Globaloria WV, will see a shift from refining the pilot to ensuring WVDE's 2012 adoption of the network. The goal is a turnkey model for statewide integration that can be replicated nationally. Here are our ten goals for the year:

1. Expand the partnership with WVDE to integrate Globaloria fully into the state's public education system
2. Double the number of participating schools
3. Expand professional and leadership development of educators, principals, and superintendents
4. Continue to enhance the Globaloria network, platform, curriculum, and related tools
5. Formally align the Globaloria curriculum with WVDE academic content and 21st-century standards and skills
6. Refine and expand the Globaloria Civics Track and expand the news literacy focus
7. Develop methodologies that measure impact on teaching and learning
8. Increase visibility to encourage national adoption of the Globaloria model
9. Attract new sources of funding
10. Develop a sound business model for a post-pilot Globaloria.

WVDE has already increased its responsibility for growth and management, and, thanks to initiatives agreed with Deputy Superintendent Dr. Jorea Marple and Assistant Director Monica Beane, it will increase its leadership further. The Department will recruit administrators and educators, will target new schools for the network—particularly poorly performing schools, will support research, and will take the lead on the smooth integration of Globaloria into the school curriculum.

We are also moving forward to create a sound post-pilot business model for Globaloria. Under this model, school superintendents and departments of education will assume a certain level of financial responsibility for Globaloria so that it is sustainable while remaining free for students and teachers. We will begin to put this model in place during 2011-2012.



Focus for pilot year 4: Via media and presentations, raise awareness nationally about the impact of Globaloria. Shown here: Idit Caperton presenting at TEDU in Oxford, UK.



In 2010-2011, 42 principals and college presidents and 20 superintendents will commit to expanding the Globaloria network across the state.

"It is truly amazing to see how far these students have come in such a short time. The students really care about their projects and I see firsthand their engagement and enthusiasm."

– Gayle C. Manchin, West Virginia First Lady



Globaloria EACPA: A School-Wide Implementation Story

The World Wide Workshop Foundation and the AMD Foundation formed a partnership in May 2009 to put Globaloria to work to create a new implementation model that changes the game of education by using game-making as a way to teach STEM skills.

AMD recommended East Austin College Prep Academy (EACPA), the charter middle school developed by Southwest Key Programs and equipped with an AMD Computer Laboratory, for the initial pilot. EACPA serves a community a quarter of whose residents live in poverty, where unemployment is rampant, and where there has been no middle school for more than 20 years.

In the space of a few months, the World Wide Workshop team, ably supported by the AMD Foundation and Southwest Key Programs, customized a model that fully integrates Globaloria into the daily curriculum.

EACPA opened in 2009 as a sixth-grade charter school that will add a grade a year until twelfth grade. Its focus is STEM learning enrichment, with an emphasis on advancing STEM learning among students traditionally left behind: typically low-performing students in economically disadvantaged, educationally underserved, urban areas. From day one, all 84 sixth-grade students—44 girls and 40 boys—were assigned to daily 90-minute Globaloria classes for the duration of the school year. Each student was assessed in order to identify the math concept that posed the greatest challenge to him or her, and this concept was designated the focus of the student's original web game. Specific math objectives were therefore integrated into the game design curriculum. In addition, special Flash learning tools were created for these English language learners, and new student tracking and educator reporting mechanisms were developed.

Also in support of these aims, the rigorous year-long professional development program and support that have become synonymous with Globaloria provided ongoing training to all staff.

First-year results have been promising. Students are more engaged and have improved digital literacy and English language skills. Many—in particular, girls—show interest in STEM careers. And educators are re-thinking their teaching and learning.

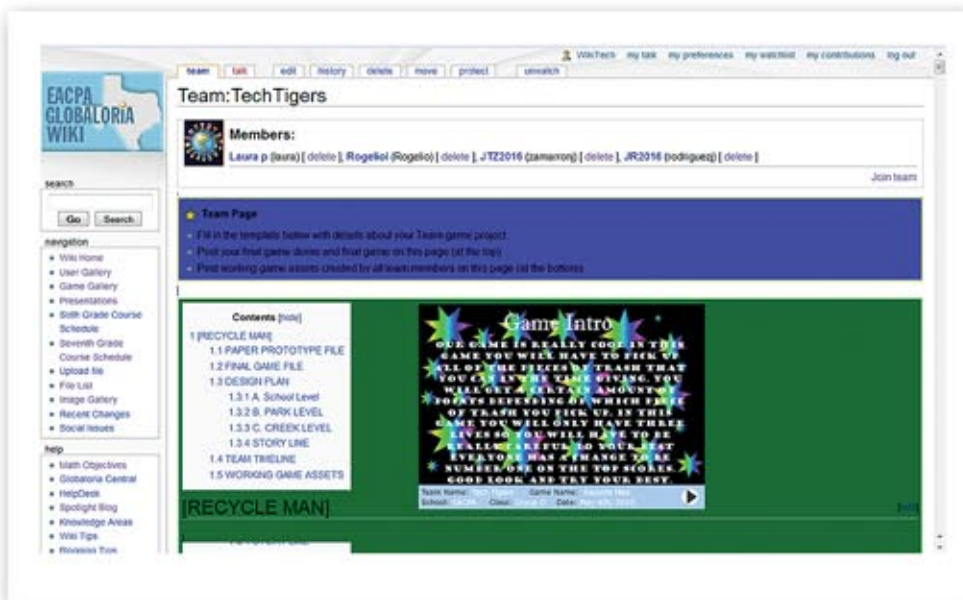
Moreover, precisely because the EACPA pilot represents a very different kind of Globaloria expansion, it powerfully demonstrates the network's versatility and flexibility. A model for a school-wide, cross-curriculum, STEM-focused educational innovation, the EACPA implementation again proves that Globaloria can reach all students and effectively change the game of education.



“The AMD Foundation and Globaloria are having an enormously positive impact on our students, inspiring and exciting them to learn. We are able to see students making great strides in their educational accomplishments and technological literacy, which we believe is largely due to this program.”

– Dr. Juan Sanchez, President and CEO, Southwest Key

World Wide Workshop staff work closely with EACPA educators – both in-person and virtually – over the entire year, to ensure they have the skills and support needed for success. Shown here: Foundation staff and EACPA educators at the first Globaloria Educators Academy at EACPA, July 2009.



The Globaloria network is customized to meet the unique character of the EACPA community—a charter middle school, in a poor, urban neighborhood, catering to English language learners and focused on STEM learning.



All EACPA students engage in Globaloria daily for 90 minutes as part of the core STEM curriculum.



The AMD Foundation partnered with Globaloria to advance their signature initiative: *Changing the Game*. Shown here: Karin Dicks, Global Program Specialist, AMD, and Shannon Sullivan, World Wide Workshop Vice President of Programs and Production, at the Globey Awards for Excellence.



Globaloria EACPA: Changing the Game of Education

True to the larger vision of the Globaloria network, Globaloria at EACPA is contributing to the creation of a model social network for learning with the capacity to enable far-reaching reform by:

- Modeling the complete integration of an online social network and curriculum for learning game design in a charter school
- Demonstrating the effectiveness of an advanced-technology, STEM-focused learning network for younger students
- Providing a road-map for empowering low-income, at-risk students—girls, in particular—in STEM subjects in which they have heretofore struggled
- Supporting educator learning in real-time, to allow educators to grow as both teachers and technology learners
- Establishing a replicable model for infusing game-changing, transformative innovation into a school culture
- Directly inspiring the digital media industry to recognize the value of game design and production for educational transformation—for example, via Globaloria headlining this year's Games for Change Festival.



EACPA sixth graders, the youngest in our network, are demonstrating that no student is too young to engage in deep STEM learning.



For many EACPA students, mastering the STEM skills to create a web game seemed impossible until Globaloria.

Mind on Fire: Juan, 6th grade: Learning How to Self-Learn

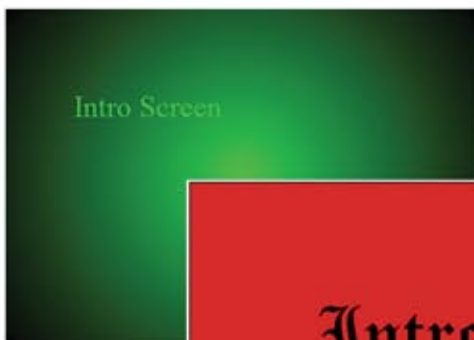
The product of what is one of the least successful elementary schools in Texas, sixth-grader Juan has had little opportunity for critical thought or self-directed learning. And despite his enthusiasm for technology, his experience with it consisted of “going to a website in the computer lab” in his former school. For Juan, the chance to create video games was exciting. He also knew that Globaloria was a way to improve his academic performance, and, as his “bio poem” above makes clear, he knew he had to; his pre-testing in math got him assigned to a group working on geometry and spatial relationships, in which Juan had scored 43 percent, dramatically lower than his scores in other areas.

A serious student, quiet and focused, Juan sometimes seemed to be off-task, but as his teachers learned, he was actually learning how to self-learn—how to explore on his own to solve problems. As his team, the Tech Tigers, worked on their game, *Recycle Man*, it was clear that Juan and the others had paid close attention to detail and had mastered what they needed to realize their game vision: the requisite skills in research, coding, programming, organizing, and collaborating.

It was not surprising that Juan’s team won first place for their game demo in the Globey Award competition, but it was particularly gratifying that Juan’s final score on the geometry and spatial reasoning objective was 100 percent. He has come a long way, has become one of the strongest students in the Globaloria classroom, and rightfully takes a position as a school leader at EACPA.



Juan



Juan's Flash design work



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_____

Juan's biopoem



Globaloria EACPA: What Happened in 2009-2010

1. Academic Advances

The 84 sixth-grade students produced 16 game concept demonstrations in Flash and chronicled their learning in personal blogs and on their wiki pages. This is potent evidence of mastery of digital literacy skills.

Games focused on the math objective with which the student had struggled the most; the average improvement of 25 percentage points was more than double that on non-Globaloria objectives. Girls in particular advanced.

Students connected with staff, programmers, game developers, and designers in person, via web conferencing, in wikis, by email, and by phone. This furthered their digital literacy and connected them to the real-world application of their STEM learning.

A three-week Summer Institute in June 2010 helped ensure that students started the 2010 year equipped with needed skills for success.

2. Educators

Of the ten EACPA educators, one lead teacher, two support educators, and an IT staff member were directly involved in the pilot. All ten were trained in Constructionism, and the four Globaloria educators received professional development training and mentoring by an experienced Globaloria WV mentor educator.

In addition, the Foundation team provided help-desk assistance and just-in-time training and support through web-conferencing tools, wikis and blogs, and a dedicated Professional Development Platform.

3. Research

Researchers from Michigan State University and the World Wide Workshop established a baseline for longitudinal study on students' computational and problem-solving skills, test scores, and girls' attitudes and mastery of STEM skills. Focus group interviews, biweekly classroom visits, and one-on-one interviews enabled in-depth information about students' everyday experience with the network—a good basis for informed program enhancements. Six *Voices from the Field* mini-documentaries were filmed, edited, and distributed as living student and educator case studies.



The strong partnership between the World Wide Workshop and Southwest Key/EACPA is critical to long-term success. Shown here: World Wide Workshop staff, Laura Minnigerode, Idit Caperton and Shannon Sullivan with Dr. Juan Sanchez, CEO, Southwest Key Programs.

Globaloria is succeeding where other innovations fail and in a tough context: a new school with high staff turnover and among English language learners from low-performing schools.



Multimedia coverage and research reports stirred national interest in the Globaloria model; including the *Voices from the Field* series being named a finalist in the 2010 Lights, Camera, Help Festival.



4. Globey Achievement Awards

In May 2010, the first annual Globey Awards recognized student achievement or improvement in design, network, and blogging skills as intended; the competition stirred enthusiasm and intensified engagement among the students.

5. Partners

The World Wide Workshop, AMD Foundation, and Southwest Key worked closely together to customize Globaloria curriculum development, educator recruitment and development, infrastructure improvements, technical support, and funding for EACPA.

6. Visibility

The Foundation has worked hard to raise awareness of Globaloria at EACPA in the media, in presentations and personal appearances, and through publication of research. Perhaps most significantly, the World Wide Workshop was the subject of the opening panel at the seventh Annual Games for Change Festival in New York. Other key points of visibility for Globaloria at EACPA include:

- A *Voices from the Field* mini-documentary on Globaloria was a finalist in the *Lights. Camera. Help Film Festival*
- Globaloria staff from Southwest Key were panel participants at GameOn Texas
- Two presentations by Dr. Caperton at the University of Texas School of Information
- Three research reports published and distributed.



With the support of AMD, Globaloria at EACPA will grow alongside the school one new grade each year, until all students, 6th- 12th grades, are engaging in daily Globaloria learning for seven consecutive years. Shown here: Idit Caperton with AMD Foundation Senior Manager, Anne Fertitta, and President, Allyson Peerman, at the 2010 Games for Change Festival in NY.



Globaloria EACPA by the Numbers

Students' Learning

- All students participated in Globaloria 90 minutes a day, five days a week
- The student body consisted of 84 students: 40 boys, 44 girls
- All EACPA students are at-risk and from underserved communities (80 percent Hispanic and 20 percent African-American), and all are English language learners
- Students were divided into 4 classes of 4 teams each for a total of 16 teams
- Most teams had 5-6 members; a few teams were smaller
- Of Team Leaders, 12 were female, 4 male
- Each student received approximately 240 hours of Globaloria instruction
- All students learned basic Flash and ActionScript programming, blogging, wiki development, and game design principles
- Student teams created a total of 16 game concept topics that focused on a social issue while achieving a math objective
- During the three-week Summer Institute, each pre-seventh-grade student created 6 Flash projects; pre-sixth graders were introduced to blogging and wikis

Educators' Professional Development

- 10 EACPA educators received in-person and virtual professional development
- The 3 Globaloria lead and support educators received 7 days of in-person training
- Lead and support educators received 20 virtual training hours via online web conferencing tools
- Lead and support Globaloria educators participated in approximately 36 mentor check-ins with an experienced Globaloria educator from the West Virginia pilot
- The lead educator received 20-30 hours per week of in-class support from World Wide Workshop staff and interns during the last 6 weeks of school
- Lead and support educators completed quarterly student progress reports; for the lead educator, this meant 84 reports
- Lead and support educators maintained blogs and wiki-based learning logs and participated in research interviews to document their own and their students' learning

Researching and Evaluating the Model

- Researchers conducted 42 one-on-one student interviews
- Educators completed 10 progress reports providing insight into student learning
- 84 students completed written surveys before, during, and after the course
- Researchers developed 10 case studies and 2 progress reports
- Researchers conducted 8 interviews with educators and administrators
- Researchers conducted 96 team meeting interviews

Mind on Fire: Sandra Estrada, Educator: Blogging the Difference



Sandra

"Students are very excited about blogging in my class twice a week and most look forward to completing their blogs outside of class... I have also set up the importance of communication through blogging and have had students begin commenting on other students' blogs as a way of learning from one another."

If you're in your first year of teaching and if, like Sandra Estrada, what you really want is to make a difference in your students' lives, then EACPA is the obvious place to be, and Globaloria is the obvious team to join. An English Language Arts teacher, Estrada saw the potential of the technology-based pilot to serve as a language learning tool, and before anyone knew it, she found herself a Blogging Support Educator. She went to summer training, got "excited about blogging...and thought, 'Oh that's cool, I could totally incorporate this, and the kids would be excited about it.'"

Throughout pilot year 1, Estrada worked with the Lead Globaloria Educator to support students in writing skills—specifically on blogs. She and her students wrote blog entries two times a week, and while some took to it at once, others needed guidance. "Most students look forward to completing their blogs outside of class," Estrada wrote. "Students have set up Google Reader to allow for easy reading of other students' blogs. I have also set up the importance of communication through blogging and have had students begin commenting on other students' blogs as a way of learning from one another."

The Globaloria experience has changed the way Estrada approaches the teaching of writing in all her classes. Using what she has learned in her educator professional development training and her own experience, she can give her students an opportunity to write for an audience even as they experience true collaboration in the learning process. The difference she has embraced is making a difference for her students. A committed blogger, it is making a difference in her life as well.



Sandra's Globaloria blog



Sandra learning blogging and basic Flash skills at a Globaloria Academy.

Unmet Needs and Ongoing Challenges for Globaloria EACPA

The defining fact of pilot year 1 of Globaloria at EACPA was that it was the inaugural year of a new charter school that was itself finding its way and that, not unnaturally, was plagued by structural and staffing issues. The unfortunate result was that World Wide Workshop staff members were perforce drawn into the struggle to support EACPA itself. Time, attention, and resources that should have been expended on education and network development were diverted to maintaining classroom order and trying to create an environment conducive to learning. Certainly, this affected Globaloria and its impact on students, who made good progress where they could have made great progress.

Our response to this situation was straightforward. As a partner committed for the long term, we dedicated extra time and resources to make sure Globaloria at EACPA was positioned for greater success in pilot year 2 and beyond.

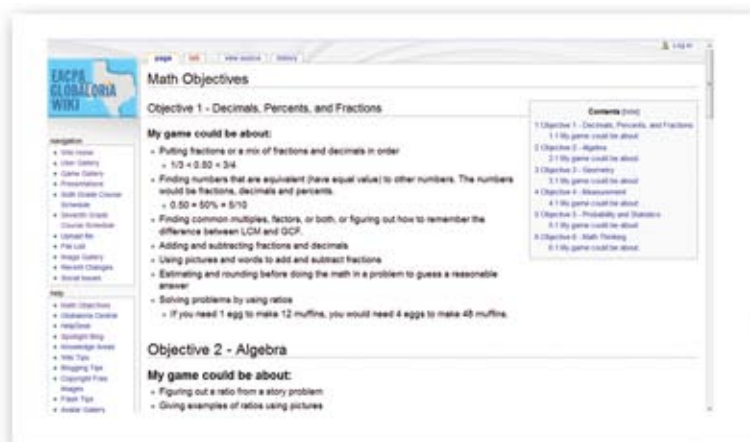
1. Staff and Structure

Inexperienced educators new to Globaloria, to the school, and to one another constituted a weak starting point. A turnover rate among educators and administrators of nearly 100 percent resulted in the loss of key personnel who had been trained and supported but would not return to EACPA for pilot year 2. It meant there was no cadre of experienced educators to move the program to the next level in pilot year 2, as planned, and this in turn necessitated a time-consuming recruitment effort. The loss of the school principal exacerbated the problem and further burdened both the school's progress and the Globaloria experience. A lack of disciplinary policies, management systems, and communications systems resulted in a disruptive classroom environment not as conducive to deep learning.

“One of the things I really like the most about Globaloria is making our mini game project, because when you grow up, that's a career. Like making games. If you are learning very, very well, that's going to be a career.”
– 6th grade student, EACPA



Foundation interns help with marketing and press, such as Noalee Harel's support for the World Wide Workshop's headlining panel at this year's Games for Change Festival in NY.



The Globaloria curriculum at EACPA is directly aligned with Texas state standards for math, science, and technology.

2. Time for Self-Learning

As in the West Virginia pilot—as well as in all ambitious learning environments—the demands on educator time are substantial. Indeed, in the EACPA community, they are particularly substantial because the long hours of the charter school restrict the time that educators can dedicate to self-learning. Again, it was World Wide Workshop staff members who made up the shortfall, spending significant time in one-on-one training and support efforts, both virtually and on the spot. Educators were also asked to take advantage of the virtual professional development platform to highlight progress and flag challenges.

3. Funding

The combined effect of the challenges of pilot year 1 put added pressure on available resources. As a result, the World Wide Workshop invested some \$60,000 in “creating success.” We look upon this as an investment towards future implementations with the AMD Foundation as we expand the Globaloria network at EACPA and around the world.

In addition, with research funding almost non-existent, we dedicated significant time and attention in pilot year 1 to seeking research partnerships with such national institutions as Michigan State University and the University of Texas-Austin. We believe that Globaloria represents a rich opportunity for educational research with the capacity to significantly inform the field of digital media and learning, and we urgently seek partners to harvest this opportunity.



To achieve success, educators dedicate significant time to their own self-learning.



Leading a collaborative classroom is a challenge the Globaloria professional development program helps educators master.

Mind on Fire: Dr. Nellie Cantu, Educator: Engaging the Students at EACPA



Nellie

The East Austin community very much wanted a middle school, and it got its wish in the East Austin College Prep Academy. Here's what EACPA CEO Dr. Nellie G. Cantu, Southwest Key's Superintendent of Schools, has to say about it...

The vision of this charter school is that we are not going to fail children... that all children have the capacity to learn and we need to create a structure and a system that supports them in their learning progress... We challenge [students], we set high standards, and we provide a structure that helps them be successful.

So we wanted children to be engaged, and Globaloria gave us an opportunity to do that. Children are playing games all the time. Well, what was interesting for us was that our children had the opportunity to design them, to be critical thinkers, to be problem-solvers. We decided that every student was going to focus on a social issue. So we've got students trying to solve issues on cancer, wanting to research it. And let me tell you, it's not an easy thing. The children told us, "This is a lot of research. This is a lot of work." But they weren't complaining. When children have dental appointments and medical appointments, it never happens during Globaloria time. Never. And I tell the children, "You're going to a doctor's appointment, where are you?" And they say, "Language Arts." Never in Globaloria. So that should tell you something. The children are having fun.

And we are preparing our students for the 21st century, we're preparing them academically, and giving them the skills—such as collaboration and teamwork—that they need to be successful; not only in their careers, but in their life.



Nellie presenting Globey Awards for Excellence to the three winning game-design teams; out of 20 competing teams.

Globaloria EACPA: 2010-2011 Goals

Here's what we need to do in pilot year 2 to realize the promise of the Globaloria network at EACPA:

1. Reduce game design team size to two to three students
2. Strengthen the educator recruitment process with newly crafted job descriptions and a directed interview process
3. Join EACPA and WV educators in training and expand the highly successful program in which WV educators mentor EACPA educators
5. Hire a Technology Integration Specialist (TIS) to maintain hardware, address technical issues, innovate new approaches to using technology in the classroom, and provide support during class time, thus freeing educators to teach
6. Strengthen our partnership with the AMD Foundation to:
 - expand the Globaloria network in EACPA and to other AMD communities and educational contexts around the world,
 - further promote and market Globaloria as an innovative education solution, and
 - recruit more AMD staff to serve as volunteer experts
7. Expand our current research partnerships and seek new research partners to mine the rich vein of data inherent in the groundbreaking work of Globaloria.

“The triad partnership of a technology corporation like AMD, an educational organization like Southwest Key, and an entrepreneurial non-profit like the World Wide Workshop has established a new model for innovation with the potential to bring about real change in education across the nation.”

– Amber Oliver, Director of Partnerships and Operations,
World Wide Workshop Foundation



New research partners, such as Lecia Barker, UT-Austin, will help to harness the research opportunity of Globaloria at EACPA.



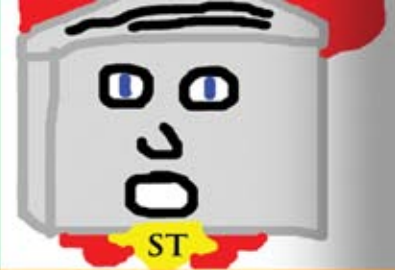
Expanding the cross-network mentorship program will strengthen learning in all schools.



Globaloria Month by Month, WV and EACPA

June 2009	<ul style="list-style-type: none"> WV pre-course surveys for educators, Globaloria Academy 1 EACPA curriculum customization and platform development
July 2009	<ul style="list-style-type: none"> Educator mentor program launched in West Virginia EACPA pre-course surveys, Globaloria Academy 1 Partnership with John S. and James L. Knight Foundation announced
August 2009	<ul style="list-style-type: none"> WV and EACPA Globaloria platforms and student programs launched Globaloria WV presented to U.S. Department of Education Assistant Deputy Secretary and to White House Office of Science Technology Policy Globaloria Academy 2 for both WV and EACPA Student pre-course surveys
September 2009	<ul style="list-style-type: none"> Q1 educator teaching and learning progress reports submitted Globaloria WV launches Civics Track and first annual Globaloria Civics Games Competition with former Supreme Court Justice Sandra Day O'Connor as chair First monthly virtual educator mini-workshops Start of weekly check-in calls with mentors
October 2009	<ul style="list-style-type: none"> Globaloria WV principals and superintendents hold colloquium at Governor's Mansion, Charleston, WV Globaloria WV Civics Track students offer initial game concepts to experts and partners, including iCivics representatives EACPA progress report submitted to AMD First expert live, on-demand sessions with students
November 2009	<ul style="list-style-type: none"> Globaloria WV student mid-year surveys submitted Globaloria Academy 1 for WV educators starting in spring semester EACPA students present game topic pitches One-on-one in-person training for EACPA educators
December 2009	<ul style="list-style-type: none"> Q2 educator teaching and learning progress reports submitted EACPA students pre-tested for assignment to personalized math objectives One-on-one in-person training for EACPA educators Globaloria WV <i>Voices from the Field</i> videos produced WV student game presentations for one-semester classes

January 2010	<ul style="list-style-type: none"> • Globaloria WV first annual Globaloria STEM Games Competition announced • Training session held for WV principals, superintendents, and county tech directors • Globaloria Academy 2 for spring-semester WV educators • Globaloria Academy 3 for fall-semester WV educators • EACPA students assigned personalized math objectives, organize teams per objective • Research Manager for EACPA recruited, start of weekly meetings with EACPA staff • WV student game presentations for one-semester classes
February 2010	<ul style="list-style-type: none"> • Educational researchers Laura Minnigerode and Dr. Alex Games visit EACPA Globaloria classrooms • Globaloria WV Advisory Board meets at WVDE headquarters • Applications deadline for WV pilot year 4
March 2010	<ul style="list-style-type: none"> • Q3 educator teaching and learning progress reports • Senator Jay Rockefeller (WV) announced as Honorary Chair of Annual Globaloria STEM Games Competition • One-on-one in-person training for EACPA educators • Development and rollout of additional support tools and materials for EACPA educators • Start of action research at EACPA
April 2010	<ul style="list-style-type: none"> • EACPA <i>Voices From the Field</i> video shoot • Globaloria WV <i>Voices From the Field</i> video shoot featuring Senator Jay Rockefeller • WV pilot year 4 schools announced
May 2010	<ul style="list-style-type: none"> • Globaloria superintendents sign memoranda of understanding • Globaloria featured at seventh annual Games for Change Festival • EACPA Globey Awards launched, AMD volunteers participate as judges • Foundation staff take part in new educator recruiting efforts at EACPA
June 2010	<ul style="list-style-type: none"> • EACPA Globey Awards ceremony • EACPA Summer Institute • Globaloria WV Civics Games and STEM Games winners announced • Q4 educator teaching and learning progress reports • One-on-one in-person training for EACPA educators



The Globaloria Research Innovation

By any measure, Globaloria represents a significant research opportunity for those interested in education and education reform, and each of the research efforts currently being undertaken by our Globaloria research partners mines a distinct and distinctly rich vein of that opportunity.

The table summarizes the research efforts of 2009-2010. The first four of these efforts—by Drs. Redfield and Chadwick, Nicholson, Reynolds, and Whitehouse—are ongoing work involving the Globaloria implementation model in West Virginia. The work of Laura Minnigerode began with the launch of the Globaloria model at EACPA and aims to follow its evolution in parallel with the expansion of this charter school. Dr. Games's research focus is classroom ecology in both pilot locations.

We work with researchers around the country to model open-source, collaborative research methodologies that can change the way we think about education.

Researcher	Subject of Research
Drs. Doris Redfield and Kristine Chadwick Edvantia, Inc., West Virginia	Effect of Globaloria on student achievement: How does participation in Globaloria affect student scores on West Virginia's standardized math, reading/language arts, science, and social studies tests?
Dr. Bobbi Nicholson Marshall University, West Virginia	Assessing the potential transferability of Globaloria skills to other academic contexts: Do Globaloria skills in critical thinking and problem-solving affect the academic performance of students in other academic pursuits? And what is the impact of Globaloria on core curriculum learning—specifically, in biology?
Dr. Rebecca Reynolds Rutgers University, New Jersey	The nature of the Globaloria learning experience: How does Globaloria change student technology habits, attitudes, and understanding? For example, does it enable students to master the six contemporary learning abilities?
Dr. Pam Whitehouse West Virginia University, West Virginia	The effect of networked learning environments on teacher professional development: Do Globaloria educators change their overall teaching style as a result of participation in the network?
Laura Minnigerode, EdM. World Wide Workshop Foundation, Texas	Action research into EACPA students' experience of Globaloria: What is the Globaloria experience for these students, and what impact does it have on their understanding of STEM concepts and design thinking?
Dr. Alex Games Michigan State University, Michigan	Game design practices and habits of mind of Globaloria participants—especially girls: Does Globaloria affect students' understanding of algorithmic thinking, mathematical aspects of computation, and the use of abstractions?



What's New in 2009-2010 in Globaloria Research

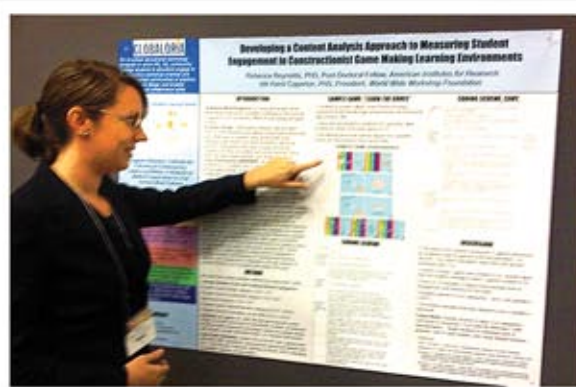
- Dr. Alex Games of Michigan State University became a new research partner focusing on classroom ecology in both the WV and EACPA laboratories
- A database management tool was developed to aggregate data from multiple sources and facilitate collaboration and comparison
- Rubrics, game coding schemes, and surveys were revised to systematize research collection and to better focus research on learning objectives
- Different datasets were combined, enabling investigation of the impact of student demographics, prior experience, and attitudes on knowledge outcomes
- Longitudinal assessment commenced in WV
- Research questions were aligned with national objectives so as to articulate the impact of Globaloria on test scores and other traditional measures of academic performance
- Research was aligned with standards of media literacy, news literacy, and digital literacy so as to demonstrate the direct impact of Globaloria on the field of digital media and learning
- Research sharing among research partners and with the digital media and learning communities was increased
- New national research partners were identified—National Center for Women & IT, University of Texas-Austin, Columbia University Teacher's College, Saint Joseph's University—as were additional funding opportunities, both Federal and private, for 2010-11.

“We are proud to present Globaloria as a multi-faceted subject of research to our peers and collaborators. As the Globaloria learning model is forging new paths in Constructionist learning theory and practice, each of our research partners demonstrates how they have been digging into the huge amounts of Globaloria data we are generating from different perspectives.”

– Idit Harel Caperton, Founder and President, World Wide Workshop Foundation



A newly developed Game Coding Evaluation—a Globaloria research innovation in its own right—enables the quantitative assessment of any student-produced Flash games.



Researchers presented their Globaloria findings at more than 35 conferences around the U.S. Shown here: Rebecca Reynolds, Rutgers University, at the 2010 AERA annual meeting.



Selected Findings

Research findings indicate that Globaloria is qualitatively and quantitatively transforming education and advancing our educational priorities and the intellectual well-being of students and educators.

Digital literacy:

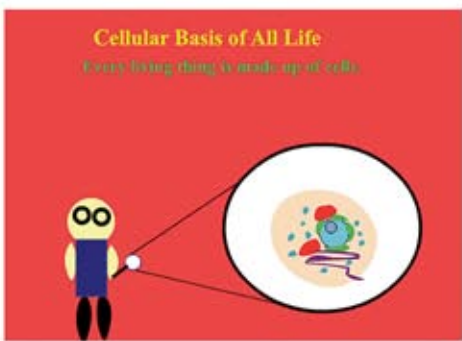
- Students significantly increased their ability level in the three most Constructionist contemporary learning abilities, indicating mastery of digital literacy:
 - › Invent, program, complete an original web game, wiki, or simulation
 - › Manage complex, project-based learning in the Web2.0 environment
 - › Produce, program, publish, and distribute interactive digital media in social networks
- The most dramatic increase in contemporary learning abilities was found to be among middle school and high school students
- Wiki participation—edits, posting, sharing, uploading—and blogging increased significantly in 2009-10 in the WV pilot
- The design goals set by the educator in each classroom had a direct impact on the students' approach to game design and their computational thinking practices

Learning habits/behaviors:

- Students stated that they learned most from educators, peers, and through communication via networking
- Globaloria effectively promoted collaborative learning, with greater numbers of students working in teams—i.e., 73 percent of all games were created collaboratively
- Globaloria students appeared to be developing new and expanding skills, including problem-solving, organizational and time management abilities, presentation, interpersonal skills, and collaborative processes
- Globaloria inspired girls to engage in and master technology and to consider STEM careers

Academic performance:

- Students who participated in Globaloria scored significantly higher than non-Globaloria students on West Virginia's WESTEST2 science and social studies subtests, and more than doubled their improvement on the Texas standardized subtest that corresponded to the subject of their game
- Globaloria students who used the network as part of a core curriculum class—for example, biology—scored moderately higher than their non-Globaloria peers on five out of six academic assessment measures: three unit tests, course average, and course grade



The integration of Globaloria into such core curriculum classes as science resulted in deeper learning.



Globaloria students scored significantly higher than non-Globaloria students on certain state tests and academic assessments. Shown here: Globaloria educator and WV State Manager, Denise Stalnaker, with Randolph Technical Center students.

Teaching style/teacher professional development:

- Educators significantly changed their teaching styles to reflect the Globaloria way of teaching and learning: self-led learning, co-learning, peer-to-peer learning, expert-guided learning
- Educators developed their own digital literacy in ways that have far-reaching effects on their teaching decisions, attitudes towards students, and the habits of mind they are developing vis-à-vis their own practice
- Educators implemented their changed teaching styles in both Globaloria and non-Globaloria classes, demonstrating the viral character of their new skills
- The Globaloria online learning network promoted democratic and collaborative educator learning that informs the individual educator at his/her own pace

Implementation/replication:

- The Globaloria platform and curriculum were shown to be sufficiently flexible for successful implementation in a wide variety of classroom settings and contexts.

Full data and findings can be found on the World Wide Workshop Foundation website under Reports: www.worldwideworkshop.org/reports.

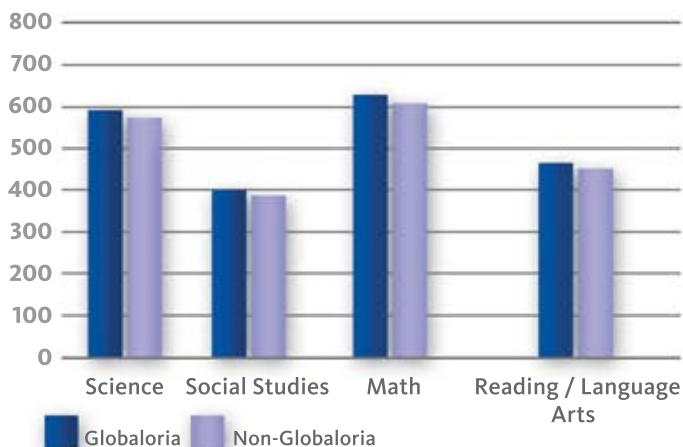


Shown here: Dr. Idit Caperton, Shannon Sullivan, David Lowenstein and Laura Minnigerode of the World Wide Workshop with Rebecca Reynolds, Rutgers University at the 2010 Games for Change Festival in NY.



Sample Results from Four Research Studies

2009 WESTEST2 MEAN SCALE SCORES COMPARING GLOBALORIA AND NON-GLOBALORIA STUDENTS (MIDDLE AND HIGH SCHOOL)

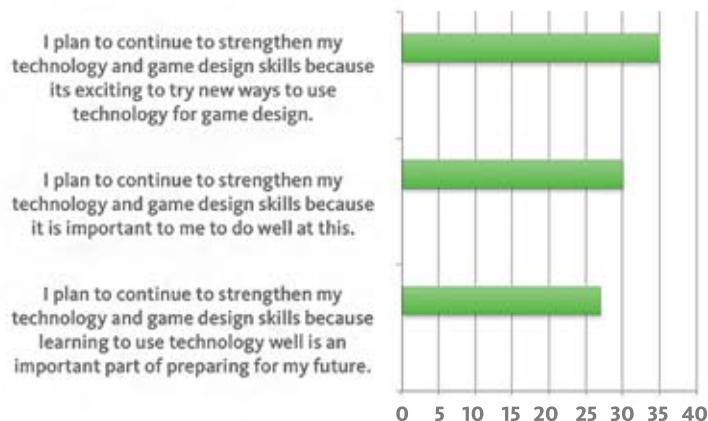


N: Science=194, Social Studies=150, Math=198, Reading/Language Arts=196
Note: This chart does not take into consideration subscale scores on the 2008 WESTEST, the covariate in the Analysis of Covariance (ANCOVA).

Drs. Doris Redfield and Kristine Chadwick, Edvantia, Inc.

Participants in Globaloria performed significantly better on subtests of the West Virginia standardized test, WESTEST2, than their non-Globaloria counterparts.

GIRLS AND TECHNOLOGY, GLOBALORIA AT EACPA, 2009-10 (POST-PROGRAM SURVEY RESPONSES)

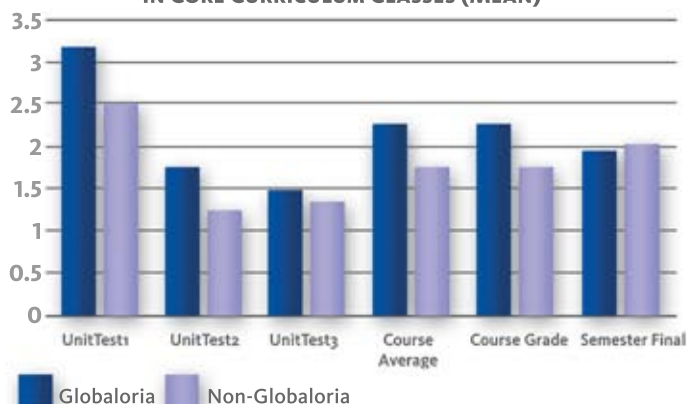


N=44 girls

Laura Minnigerode, World Wide Workshop Foundation

Globaloria inspires girls to engage in and master technology and to consider pursuing STEM careers.

ACADEMIC ACHIEVEMENT COMPARING GLOBALORIA AND NON-GLOBALORIA WV HIGH SCHOOL STUDENTS IN CORE CURRICULUM CLASSES (MEAN)

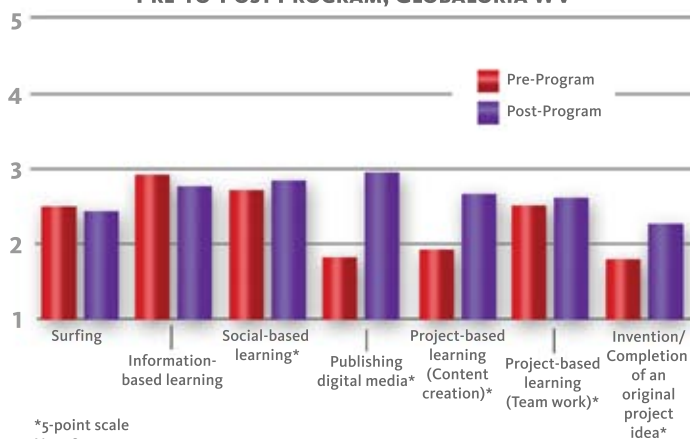


N=49

Dr. Bobbi Nicholson, Marshall University

Integrating Globaloria into core curriculum classes resulted in better performance on five out of six traditional academic metrics.

CHANGES IN MIDDLE SCHOOL STUDENTS' 6 CONTEMPORARY LEARNING ABILITIES (MOTIVATION), PRE-TO-POST PROGRAM, GLOBALORIA WV



*5-point scale

N=208

Survey items read "I enjoy..." [range of activities]

Dr. Rebecca Reynolds, Rutgers University

Globaloria increases students' motivation to engage in the most Constructionist CLAs and become digitally literate.

our game is about a man running in a track trying to lose weight and has to jump hurdles and my team and I chose to do this because there are alot of over weight people in austin and we want to show how extersize can change this.

The Research Challenge

We are particularly proud of these research efforts—and their findings—in light of the limited research funds available and the lack of a single leader to coordinate all the research.

During the 2010-2011 academic year, we are endeavoring to build on these achievements in several ways:

- By forging stronger partnerships among our researchers so they can support one another and advance together; to this end, we sponsored the first Globaloria Research Symposium at the Harvard Graduate School of Education in September, 2010.
- By finding more partners of the highest caliber. New partnerships have been established with the National Center for Women & IT, the University of Texas-Austin, Columbia University Teachers' College and Saint Joseph's University.
- By appointing a central leader for our research efforts.
- By expanding on current research to include more longitudinal studies, new assessment tools, rubrics, and methodologies.
- By improving data collection and database management.
- By distributing our research more widely, making it available for researchers to use and build upon.
- By presenting our research using different media, including video.
- By further aligning research objectives with national educational priorities.



Foundation staff, research partners, and leaders in digital media and learning gathered for the first Globaloria Research Symposium at Harvard Graduate School of Education in September 2010.



Research findings directly impact programmatic enhancements and customizations. Shown here: Laura Minnigerode, Globaloria at EACPA Researcher Manager, Alex Games, Michigan State University, and Rebecca Reynolds, Rutgers University meeting with Alessandro La Porta, World Wide Workshop Assistant Programs Manager.



Our approach to research—multimedia, collaborative, open, and transparent—is an innovation in its own right.

Funding Education Reform

Funding for Globaloria has brought not just the implementation of pilot programs but also the creation of the components needed for fundamental educational change. As this report has demonstrated, five years of research and development—a start-up phase from 2005 to 2008 and a scale-up phase in 2008-2010—have proven the concept, built the network, and put in place the necessary model for educational reform.

Equipped with these components of change, any community, district, state, company, or entrepreneur can initiate and take ownership of education reform on any scale, anywhere, in any context; all that's needed are the requisite technology and time.

This is the vision that attracted our initial angel funders and has resulted in a near 100-percent retention rate of all of our scale-up funders at either the same or higher levels.

It is also what has inspired our implementation partners, such as WVDE and Southwest Key/EACPA, to invest both money and the time of their personnel year after year, as they ready themselves to take ownership of their Globaloria networks.

As we set our sights on the ambitious goal of five states in five years, new funding is needed if further expansion is not to be stymied, as it has been in the past. To that end, we are reaching out to publishers, technology corporations, state school systems, larger foundations, and other private funders for partnership opportunities, even as we continue to seek Federal funding to expand our scale-up efforts. We are simultaneously working hard to raise the visibility of our profile at national and international conferences by publishing research, by producing and distributing our *Voices from the Field* documentary series, through an expanded online presence, press relations, and, most recently, through blog entries on The Huffington Post.

The work of the World Wide Workshop so precisely answers the nation's educational priorities and so clearly charts the way to change that failure to optimize the opportunity it represents would be a huge loss for students and educators everywhere. Only when we can meet the funding challenge will we be able to finalize this model for needed educational transformation.



Globaloria is a unique educational innovation that can effect sustainable change on a large scale.

Foundation Revenue Summary (West Virginia and EACPA)

	Start Up Phase			Scale Up Phase				
	2005-2006	2006-2007	2007-2008	2008-2009	2009-2010	2010-2011	2011-2012 (Projected)	TOTAL
CASH REVENUE	\$ -	\$166,800	\$558,197	\$604,630	\$882,657	\$1,012,000	\$1,500,000	\$4,724,284
IN-KIND REVENUE	\$518,237	\$228,356	\$244,475	\$264,966	\$191,007	\$200,000	\$300,000	\$1,947,041
REVENUES TOTAL	\$518,237	\$395,156	\$802,672	\$869,596	\$1,073,664	\$1,212,000	\$1,800,000	\$6,671,325

Note: From 2005 to 2010, the World Wide Workshop received a total of \$1,549,294 in grants from private foundations and corporations (Cisco, HBO, OLPC Association, Schlumberger-SEED, Spirit in Action, 21st Century Fund, Verizon WV, Caperton Fund, John S and James L Knight Foundation, AMD Foundation, Frontier WV, ESA Foundation, World Wide Workshop Consulting Group); \$1,588,890 in public funds (WV Governor's Office and WVDE, the latter receiving partial funding for its grants from the Benedum Foundation); \$86,100 in individual donations; and \$1,647,041 in in-kind donations. We anticipate that most of our funders will continue to support our efforts through the scale-up phase, and we are working to attract new funders (Gates, USDoE, NSF, Wallace, Ford, Book Publishers, Technology Corporate Foundations) and to render schools and counties responsible for a certain percentage of the costs.

"Globaloria represents the kind of inspiration, innovation, and investment that is vital to individual student success, and also for the future economic success of states like West Virginia and the United States as a whole. We at the Entertainment Software Association are pleased to invest in the continued success of Globaloria, and applaud its vision and commitment."

– Erik Huey, Senior Vice President, Entertainment Software Association, a 2010 Globaloria WV Funder



Erik Huey speaking at the Globaloria WV Principals and Superintendents Leadership Colloquium in Charleston, WV.



World Wide Workshop staff work across the Foundation to ensure programmatic success, inspire new funding opportunities and nurture existing partnerships. Shown here: Shannon Sullivan, Vice President of Programs and Production, David Lowenstein, Globaloria WV State Director, and Amber Oliver, Director of Partnerships and Operations.

Looking Ahead: Reaching Every Student in America

Five years after launch, the Globaloria concept has been proven successful, and we are ready to systematize a model for its large-scale replication—a model that will work anywhere to create change that can be sustained successfully over the long term.

To do this, as we see it, we need to do two things:

First, we must continue doing what we are doing, and we must do it well on all fronts—research, partnerships, visibility, funding, refining the learning and teaching power of the Globaloria network. At the same time, we must develop a model “package” that any school district, superintendent, principal, or educator can use for implementing Globaloria in any size school or classroom, wherever it is, whatever its environment or prevailing circumstances.

Our framework for this, *Designing for Scale: Organic Adaptability*,ⁱⁱⁱ was developed by Professor Chris Dede of the Harvard Graduate School of Education, a special advisor to the World Wide Workshop network of researchers. Thus far, we have realized steps one and two, having proven the effectiveness and sustainability of Globaloria, as research confirms. We now must diffuse the change we have effected, shifting ownership to users to arrive at a state of self-renewing evolution.

To get there, we intend to address such leaders of the technology industry as Google, Microsoft, Yahoo, Frontier, ATT, Apple, Adobe, and others, while continuing our work with our education partners.

We will also continue to advocate what so many educational and civic leaders across the nation espouse—namely, the urgent need to provide *all* students and teachers, no matter their zip code, with broadband learning networks that *equally* distribute quality education in needed skills.

With this report, we invite readers to join us in realizing the grand vision that Globaloria represents.

Designing for Scale: Organic Adaptability

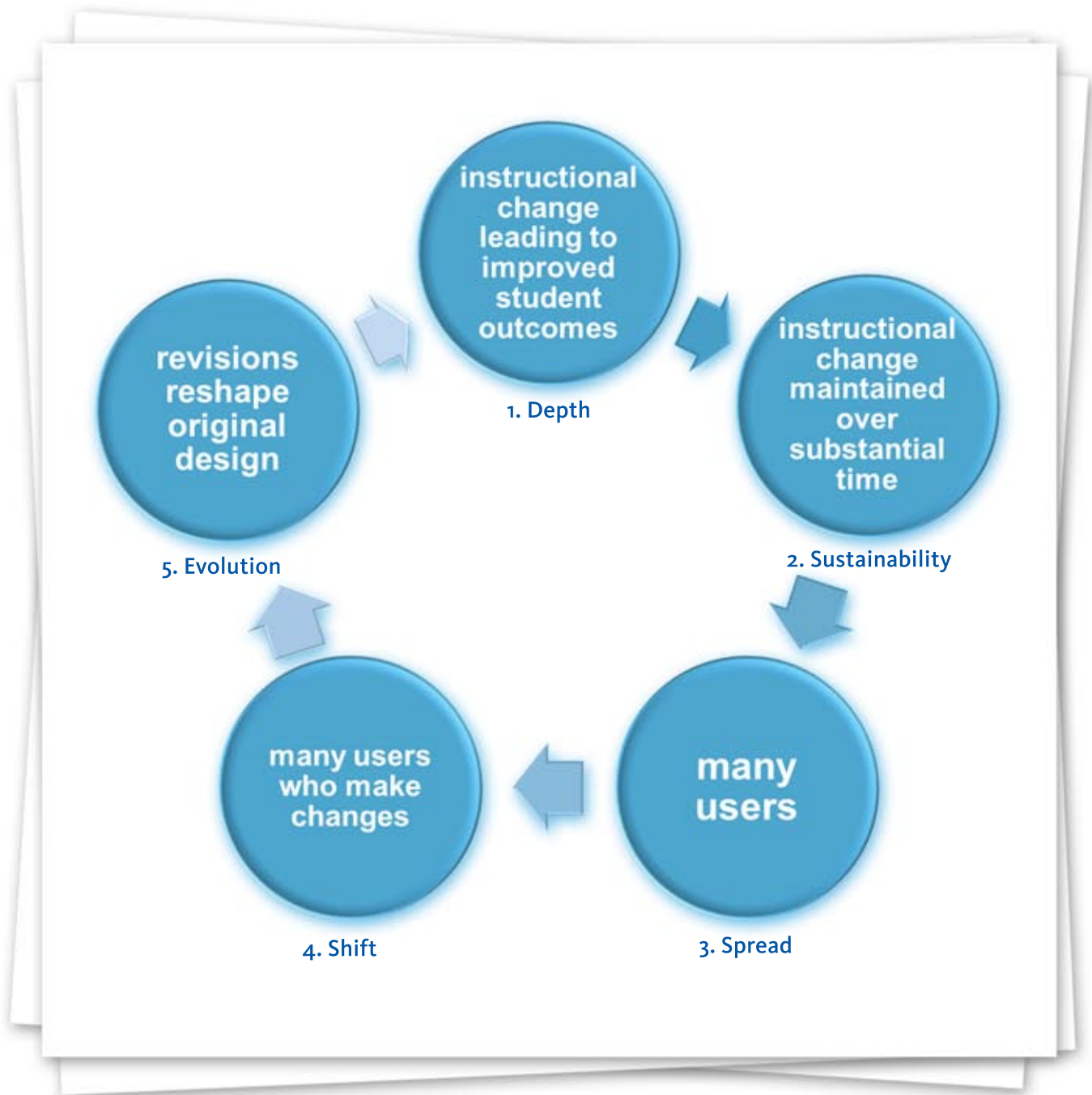
- 1. Depth:** Ensure the effectiveness of the innovation and understand the causes of the effectiveness.
How to achieve: Research and evaluate, then enhance and modify the program.
- 2. Sustainability:** Demonstrate that changes in practice can be maintained over substantial periods of time.
How to achieve: Maintain effectiveness for varied users and in varied conditions, leverage technology to automate processes.
- 3. Spread:** Show that large numbers of users are embracing the innovation
How to achieve: Retain effectiveness while reducing resource requirements via cost-sharing among partners, leveraging of technology to reduce participation barriers and create new efficiencies.
- 4. Shift:** Empower many users to deepen and sustain the innovation via adaptation
How to achieve: Train users to collaborate and co-design, transfer leadership and ownership to the community, leverage technology for collaboration and communication.
- 5. Evolution:** Continual revisions, new innovations and re-designs
How to achieve: Work collaboratively to continually enhance and innovate.



The Globaloria WV Advisory Board is working closely with the Foundation to systematize a model for large-scale, long-term education reform that can be replicated in any educational context and community. Shown here: Tom Heywood, Managing Partner, Bowles Rice LLP, Former Chief of Staff and Counsel to Governor Caperton (1989-93) and Member of the Foundation's Board of Directors.



Designing for Scale: Organic Adaptability



The World Wide Workshop Network

Team of Experts

Dr. Idit Harel Caperton, President and Founder
Shannon Sullivan, Vice President of Programs and Production
Amber Oliver, Director of Partnerships and Operations
Stuart Sim, Director of Technology
David Lowenstein, Globaloria WV State Director
Denise Stalnaker, Globaloria WV State Manager
Laura Minnigerode, Globaloria at EACPA Program Manager
Rachel Rosenfelt, Project Manager
Alessandro La Porta, Assistant Programs Coordinator
Yvonne Martinez, Assistant Programs Coordinator
Maitreyi Doshi, WV Project Coordinator
Peggy Sloin, Development Coordinator
Bonnie Bracey Sutton, Outreach and Professional Development Coordinator
Jeff Gray, Web and Wiki Master
Meredith Battjer, Web and Wiki Master
Brian Judy, Flash Developer and Instructor
Ernesto Santos, Web, Wiki and Database Developer
Rich Goehl, Art Director and Lead Designer
Andrew Watson, Videographer and Editor
Susanna Margolis, Writer and Editor
Fritz Badilla, Administrative Assistant / Bookkeeper

Educator Mentors and Consultants

Ingrida Barker, Sandy River Middle School, Avondale, WV
Bill Dorsey, Capital High School, Charleston, WV
Patrick Smith, Mountwest Technical & Community College, Huntington, WV
Denise Stalnaker, Randolph Technical Center, Elkins, WV

Interns

WV Interns: EJ Bennett, Daniel Heath Lafferty, Valerie Malcomb, Matthew Robert, Damian Turner
EACPA Interns: Claire Cella, Jessica Gray
NY Interns: Noalee Harel, Leslie Hiciano, Daniel Ron, Max Wiseltier

Research Partners

Dr. Catherine Ashcraft, Senior Research Scientist, National Center for Women & IT, University of Colorado
Dr. Lecia Barker, Research Associate Professor, University of Texas at Austin and Senior Research Scientist, National Center for Women & IT, University of Colorado
Dr. Kristine Chadwick, Executive Director, Edvantia, Inc., West Virginia
Dr. Alex Games, Assistant Professor, Department of Telecommunications, Information Studies and Media, Michigan State University
Dr. Aimée Knight, Assistant Professor, College of Arts and Sciences, Saint Joseph's University, Pennsylvania
Laura Minnigerode, Globaloria at EACPA Research Manager, World Wide Workshop Foundation, Texas
Dr. Bobbi Nicholson, Professor, Graduate School of Education, Marshall University, West Virginia
Dr. Doris Redfield, President, Edvantia, Inc., West Virginia
Dr. Rebecca Reynolds, Assistant Professor, School of Communication and Information, Rutgers University, New Jersey
Dr. Pam Whitehouse, Professor of Technology, Learning and Culture, West Virginia University



Monica Beane, WVDE Assistant Director of Instruction, Gaston Caperton, Former WV Governor and Globaloria WV Advisory Board member, Idit Caperton, Foundation President, and David Lowenstein, Globaloria WV State Director meeting with Senator Jay Rockefeller, Honorary Chair of Globaloria STEM Game Design Competition.

Research Advisors

Dr. Chris Dede, Professor, Learning, Technologies, and Education, Harvard Graduate School of Education
 Dr. Yasmin Kafai, Professor, Graduate School of Education, University of Pennsylvania
 Ray Rose, President, Rose & Smith Associates
 Dr. Terrence Tivnan, Lecturer on Education, Harvard Graduate School of Education
 Dr. Uri Wilensky, Professor, Learning Sciences and Computer Sciences, School of Education and Social Policy, Northwestern University

Globaloria West Virginia Advisory Board & Special Guests

Co-Chairs: First Lady Gayle C. Manchin and Dr. Idit Harel Caperton
 Monica Beane, Assistant Director, Office of Instruction, West Virginia Department of Education, WVDE Liaison to Globaloria
 Dr. Dixie Billheimer, CEO, West Virginia Center for Professional Development
 Gaston Caperton, Former West Virginia Governor (1989-97), President, College Board
 Jay Cole, Chief of Staff for President, West Virginia University
 B. Keith Fulton, President, Verizon West Virginia, Verizon Communications
 Kay Goodwin, Secretary, West Virginia Department of Education and the Arts
 Tom Heywood, Managing Partner, Bowles Rice LLP, and Former Chief of Staff and Counsel to Governor Caperton of WV (1989-93)
 Dee Hopkins, Dean, College of Human Resources and Education, West Virginia University
 Lloyd Jackson, Former West Virginia State Senator (1987-91, 1995-2003) and Chair of the Senate Education Committee (1995-2003)
 Dr. Lee Kraus, Interactive Marketing Manager, Mythology Marketing (former Globaloria-WV State Manager)
 Dr. Jorea Marple, Deputy Superintendent of Schools, West Virginia Department of Education
 Dr. Bobbi Nicholson, Professor, Graduate School of Education, Marshall University
 Dr. Steven L. Paine, State Superintendent of Schools, West Virginia Department of Education
 Dr. Doris Redfield, President, Edvantia, Inc., Charleston, West Virginia
 Dr. Pam Whitehouse, Professor of Technology, Learning and Culture, West Virginia University

Globaloria EACPA Advisory Board

Dr. Idit Harel Caperton, President and Founder, World Wide Workshop Foundation
 Dr. Nellie Cantu, Superintendent of Schools, Southwest Key Programs
 Allyson Peerman, President, AMD Foundation
 Dr. Juan Sanchez, President and Founder, Southwest Key Programs
 Ward Tisdale, Senior Director of Global Community Affairs, AMD

Globaloria Game Design Competitions Judges

STEM Competition

Jay Rockefeller, United States Senator from West Virginia (Honorary Chair)
 Dr. Dixie Billheimer, CEO, West Virginia Center for Professional Development
 Gaston Caperton, former Governor of West Virginia and President of the College Board
 B. Keith Fulton, President and CEO, Verizon West Virginia
 Margaret Honey, President and CEO, New York Hall of Science
 Ryan Jackson, MIT Graduate and West Virginia native
 Gayle Manchin, First Lady of West Virginia

Civics Competition

Sandra Day O'Connor, Former U.S. Supreme Court Justice and Founder, iCivics.org (Honorary Chair)
 Jessica Goldfin, Program Associate, Knight Foundation
 Gayle Manchin, First Lady of West Virginia
 Dr. Jorea Marple, Deputy Superintendent of Schools, West Virginia Department of Education
 Dan Norton, Founding Partner and Lead Designer, Filament Games
 Abigail Taylor, Executive Director, iCivics.org
 Bob Wise, former Governor of West Virginia and President of the Alliance for Excellent Education

Globey Awards

Karin Dicks, Coordinator of Volunteer AMD Judges, AMD Foundation
 Tonya Ross, Globaloria EACPA Lead Educator
 Ingrida Barker, Globaloria EACPA Mentor and Globaloria WV Educator
 Laura Minnigerode, Globaloria EACPA Program and Research Manager



Idit Caperton and Ward Tisdale, Senior Director of Global Community Affairs, AMD



Globaloria Network of Participants and Partners 2009-2010

West Virginia:

13 superintendents, 22 schools, 22 principals and college presidents, 33 educators, 48 learning groups (16 subject-specific integrations), 73 game-design teams, 577 students, 221 games

EACPA, TX:

1 superintendent / principal, 1 school, 3 educators, 4 learning groups (all math-specific), 15 game-design teams
84 students, 16 game concept demos

WEST VIRGINIA State Superintendent of Schools, Dr. Steven L. Paine	
Braxton County Superintendent, Dennis J. Albright	Harrison County Superintendent, Susan L. Collins
Braxton County High School Principal, James Lambert Educator, Donna Singleton	Bridgeport Middle School Principal, Carole Crawford Educators, Melissa Forinash & Jan Frenzel
Cabell County Superintendent, William A. Smith	South Harrison High School Principal, Phillip Brown Educator, Cheri Chenoweth
Mountwest Community & Technical College President, Keith Cotroneo Educators, Joshua Joseph & Patrick Smith	Jefferson County Superintendent, Susan K. Wall
Greenbrier County Superintendent, John D. Curry	Shepherd University President, Suzanne Shipley Educator, Monica Larson Levine
Eastern Greenbrier Middle School Principal, Doug Clemons Educators, Lisa Dolan & Melanie Sheppard	Kanawha County Superintendent, Ronald E. Duerring
Greenbrier East High School Principal, Jeff Bryant Educators, Kevin Warfield, Liz Daigle & Jim Allder	Capital High School Principal, Clinton Giles Educator, Bill Dorsey
Greenbrier West High School Principal, Randy Auvil Educators, Angie Leef & Vicky Neal	Riverside High School Principal, Paula Potter Educators, Norma Cordle & Heather McChesney
Hancock County Superintendent, Suzan L. Smith	Logan County Superintendent, Wilma Zigmond
Oak Glen High School Principal, Barbara Logue Educator, Sheila Robinson	Man High School Principal, Sandra Manning Educator, Natalie Ellis
	Southern Community College President, Joanne Tomblin Educator, Matt Payne

WEST VIRGINIA

State Superintendent of Schools, Dr. Steven L. Paine

McDowell County
Superintendent, Suzette Cook

Sandy River Middle School
Principal, William Campbell
Educators, Ingrida Barker & Aaron Lester

Ohio County
Superintendent, George S. Krelis

Florence Crittenton Center for Girls (At-Risk, Alt. Ed.)
Principal, Tracee Chambers
Educators, Dionne Cox, Natascha Francis & Melonie Milliken

Wheeling Park High School
Principal, Bernie Dolan
Educator, Bob Turbanic

WV Northern Community College
Principal, Corey Murphy
Educator, Larry Tackett

Raleigh County
Superintendent, Charlotte Hutchens

Liberty High School
Principal, Clyde Stepp
Educator, Tracy Halsey

Woodrow Wilson High School
Principal, Charles Maynard
Educator, Melinda Spencer

Randolph County
Superintendent, James B. Phares

Randolph Technical Center (Technical / Vocational High School)
Principal, Don Johnson
Educator, Denise Stalnaker

Wayne County
Superintendent, Gary L. Adkins

Spring Valley High School
Principal, Stephen Morris
Educator, Jeremy Reed

Wood County
Superintendent, William A. Niday

Pressley Ridge School (At-Risk, Alt. Ed.)
Principal, Lisa Hoskins
Educators, Neale Garvin & Lori Tate

East Austin College Prep Academy (EACPA), TX
Superintendent of Schools, Dr. Nellie Cantu

EACPA
Principal, Dr. Nellie Cantu
Educators, Tonya Ross Miller, Sandra Estrada & Rachel Penticuff



Globaloria Network of Participants and Partners 2010-11

West Virginia:

20 superintendents, 43 schools, 42 principals and college presidents, 56 educators, 75 learning groups (10 subject-specific integrations), 404 game-design teams, 1192 students

EACPA, TX:

1 superintendent / principal, 1 school, 3 educators, 15 learning groups (STEM), 85 game-design teams, 179 students

IS 364 in Brooklyn, NY:

1 superintendent, 1 school, 1 principal, 1 educator, 1 learning group (science/civics), 15 game-design teams, 31 students

WEST VIRGINIA State Superintendent of Schools, Dr. Jorea Marple	
Barbour County Superintendent, Jeff Kittle	Fayette County Superintendent, Dwight Dials
Kasson Middle School Principal, Michelle Barb Educator, Angie McDaniel	Fayetteville High School Principal, David Null Educator, Megan Jones
Phillip Barbour High School Principal, Lisa Heinbaugh Educator, Gerald Furby	Oak Hill High School Principal, Tim Payton Educator, Pat Bay
Braxton County Superintendent, Dennis J. Albright	Greenbrier County Superintendent, John D. Curry
Braxton County High School Principal, Dawn Dooley Educator, Donna Singleton	Eastern Greenbrier Middle School Principal, Doug Clemons Educators, Jennifer Hayes & Melanie Sheppard
Cabell County Superintendent, William A. Smith	Greenbrier East High School Principal, Jeff Bryant Educators, Jim Alder & Liz Daigle
Mountwest Community & Technical College President, Keith Cotroneo Educators, Josh Joseph & Patrick Smith	Greenbrier West High School Principal, Randy Auvil Educators, Angie Leef & Vicky Neal
Doddridge County Superintendent, Janice Michels	Western Greenbrier Middle School Principal, Ray Lee Educator, Nora Smith
Doddridge County High School Principal, Gregory Kuhns Educator, Jeremy Ross	

WEST VIRGINIA

State Superintendent of Schools, Dr. Jorea Marple

Hancock County
Superintendent, Suzan L. Smith

Oak Glen High School
Principal, Barbara Logue
Educator, Sheila Robinson

Weir High School
Principal, Martin Hudek
Educator, Betty Smith

Harrison County
Superintendent, Susan L. Collins

South Harrison High School
Principal, Phillip Brown
Educator, Cheri Chenoweth

Kanawha County
Superintendent, Ronald E. Duerring

Capital High School
Principal, Clinton Giles
Educator, Bill Dorsey

Dunbar Middle School
Principal, Lynda Gilkeson
Educators, John Beech, Carol Jones, Sara Ryan
& Laura Sturgill

George Washington High School
Principal, Missy Ruddle
Educator, Karen Kail

Riverside High School
Principal, Valerie Harper
Educators, Rebecca Cooper
& Jason Eldridge

South Charleston Middle School
Principal, Henry Graves
Educator, C.K Dolan

West Virginia State University
President, Hazo Carter Jr.
Educator, Brenda Wilson

Logan County
Superintendent, Wilma Zigmond

Chapmanville Middle School
Principal, Jason Browning
Educator, Crystal Moore

Chapmanville Regional High School
Principal, Terry Elkins
Educator, Lana L. Turner

Logan Middle School
Principal, Ernestine Sutherland
Educator, Vicki Zeto

Logan Senior High School
Principal, Robert Lucas
Educator, Joseph Carroll

Man High School
Principal, Sandra Manning
Educator, Natalie Cook Ellis

Man Middle School
Principal, Cindy Caldwell
Educator, Cindy Paynter

Marshall County
Superintendent, Alfred Renzella

Cameron High School
Principal, Jack Cain
Educator, Rhonda L. Williams

McDowell County
Superintendent, Suzette Cook

Sandy River Middle School
Principal, William Campbell
Educators, Aaron Lester & Larry Addair

Monroe County
Superintendent, Kevin Siers

Monroe County Technical Center
Principal, Paul Lovett
Educator, Roberta (Bobbie) Tuggle



WEST VIRGINIA

State Superintendent of Schools, Dr. Jorea Marple

Ohio County
Superintendent, George S. Krelis

Raleigh County
Superintendent, Charlotte Hutchens

Florence Crittenton Center for Girls (At-Risk, Alt. Ed.)
Principal, Tracee Chambers
Educator, Melonie Milliken

Liberty High School
Principal, Clyde Stepp
Educator, Tracy Halsey

Ohio County Alternative School, Bernie Dolan
Educator, Margaret (Margie) Molnar

Woodrow Wilson High School
Principal, Charles Maynard
Educator, Sherri Morgan

Wheeling Park High School
Principal, Bernie Dolan
Educator, Bob Turbanic

Randolph County
Superintendent, James B. Phares

WV Northern Community College
President, Martin Olshinky
Educator, Larry Tackett

Randolph Technical Center (Technical / Vocational
High School) Principal, Don Johnson
Educator, Christina Waybright

WVNCC Middle College
Principal, Corey Murphy
Educator, Amy Ritz

Tygarts Valley High School
Principal, Steve Wamsley
Educator, Diane K. White

Putnam County
Superintendent, Harold L. "Chuck" Hatfield

Wayne County
Superintendent, Gary L. Adkins

Buffalo High School
Principal, Richard Grim
Educator, Laura McCloud

Spring Valley High School
Principal, Stephen Morris
Educator, Jeremy Reed

Hurricane High School
Principal, Richard Campbell
Educator, Catherine Grim

Webster County
Superintendent, A.J. Rogers, Jr.

Webster County High School
Principal, William Phillips
Educator, Tammy Holcomb

Wood County
Superintendent, Patrick Law

Pressley Ridge School
Principal Lisa Hoskins
Educator, Lori Tate & Neale Garvin

East Austin College Prep Academy (EACPA), Superintendent of Schools, TBD

EACPA, Principal, Marisol Rocha, Educators, Nyssa Arcos Evans & Teresa Valdez

New York, Commissioner of Education, David Steiner

Kings County, NY, Superintendent, John Stankovich

IS 364, Principal, Dale Kelly, Educator, Otis Robinson



Endnotes

ⁱ Obama, Barack. Speech before U.S. Hispanic Chamber of Commerce, March 9, 2010.

ⁱⁱ National Center for Women & IT (2010). The NCWIT Scorecard: A Report on the Status of Women in Information Technology. <http://www.ncwit.org/scorecardflash/>.

ⁱⁱⁱ Clarke, J., & Dede, C. (2009). Design for scalability: A case study of the River City curriculum. *Journal of Science Education and Technology* 18(4), 353-365.

^{iv} Chadwick, K., & Gore, J. (2010). The Relationship of Globaloria Participation and Student Achievement. Edvantia, Inc., WV.

^v Reynolds, R. (2010). Evidence of Liberty High School Students' Development of Contemporary Learning Abilities in a Game Design Program in Rural West Virginia. Rutgers University, NJ.

"We are very committed to learning by doing and peer-mentoring, and we are constantly looking for ways to nurture the leadership potential of the community and ensure the network's long-term sustainability."
– Shannon Sullivan, Vice President of Programs and Production, World Wide Workshop Foundation

Credits

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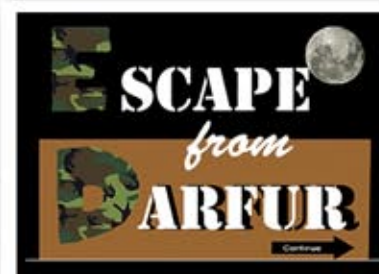
Report Design: Rich Goehl



Globaloria empowers educators to transform teaching and learning. Shown here: Mentor educators, Denise Stalnaker and Ingrida Barker, supporting pilot year 3 educator, Melinda Spencer.



Globaloria prepares students to be collaborative, action-oriented digital citizens.



Globaloria helps build STEM competencies while expanding global awareness.

GLOBALORIA GAMES INVENT • BUILD • SHARE

This school year serving over 1000 students in WV, TX & NY [LOGIN](#)

Play Educational Web Games Made By Students!



Team: The Epic Failz
Science Game



Team: ASC Kids :)
Music Game



Team: Rocket
Recycling Game



Team: Jessamiah!
Environmental Game



Team: Klangfarbenmelodie
Civics Game



Team: Matt Crist
Health Game

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- ▶ Educational Benefits
- ▶ Inspiration Awards
- ▶ Competitions
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How it Works
Students make educational web games using a real-world design process



Mission

- 1) To engage millions of students in digital learning for mastering the knowledge and skills they need to succeed in school, college and careers in the global innovation economy;
- 2) To empower educators and school systems by enhancing their 21st-century

Hear From Globaloria Students, Principals, and Educators



Educators: Turn Your Class into a 21st Century Design Studio!



Students: Get Your Game On... In School and Online!



Principals: Empower Educators and Engage Students!



Screenshots of Student Games



Photos of Students in Action



Globaloria Spotlight
The Best of Globaloria-WV

Posts

Good Demo By Mr. Wrong and Mr. Awesome

The team from Harrison High School, Mr. Wrong

WorldWideWorkshop

Powerful Ideas for Global Learning and Leadership in the 21st Century

With the Globaloria learning network, the World Wide Workshop Foundation seeks to bring STEM learning, digital literacy, computing education, and 21st-century skills to young people—middle school through college—in disadvantaged and underserved communities. Working alone and in teams, students use the network and its digital tools to create their own educational web games, thereby improving their digital literacy, analytical skills, and STEM expertise as they learn about the subject of their game.

This report focuses on two Globaloria pilots now demonstrating the potential of this unique educational innovation: a statewide network in West Virginia and a school-wide network in the East Austin College Prep Academy (EACPA) in Texas.

Together, these pilots reached more than 700 students and 75 educators in 23 schools in 2010, and 1200 students and 122 educators in 43 schools by early 2011. Preliminary results are extremely positive: improved test scores, increased STEM learning and digital literacy, and deeper levels of engagement in learning content among all students, and in particular among girls. Both pilots are on track for adoption by local public school authorities for long-term integration into the school system.

This report details how Globaloria is changing lives today and how it can be replicated in customized fashion in any educational context anywhere.