

Uniting Education
+ Architecture

Anatomy of a
Symposium

Collaborative
Interdisciplinary Teams

Safe and Secure
Environments

EDUCATIONAL RESEARCH DESIGN SYMPOSIUM

Positively Impacting Education through Design

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Positively Impacting Education Through Design

EDUCATIONAL RESEARCH DESIGN SYMPOSIUM **in Review**

The OU Symposium was an idea generated about two years ago, that was looking at how Education impacted Design.

By: CHRISTINA J. HOEHN, M.Ed, Assoc. AIA, RID

The OU Symposium was an idea generated about two years ago, that was looking at how Education impacted Design. The Team thought about the opportunity to talk with some of the brightest young minds in both the College of Education and the College of Architecture and research the next generation of educators and Architects.

The Symposium also reached out to International Education thought leaders and have them present ideas of actual research and findings about the connection of Education and Design. Amy Yurko, with BrainSpaces was the Keynote speaker who discussed this subject matter.

The day was also filled with presentations on Safety, from

the human perspective and safety from the natural disaster perspective. The Symposium closed with a summation on the importance of creativity and collaboration.

A key component in the symposium was to have the students from the College of Education and the College of Architecture present their design ideas to the audience from their month long charrette on which the stated challenge was "Create an Innovative Learning Environment for 2025".

The Event Leaders, FSB Architects Engineer Planners and Hollis + Miller Architects each had their leadership start the morning off by giving a short talk about



Introductions at symposium

how public K-12 and Higher Education are and will continue to the bedrock of advancing education in the 21st Century and into the future. More and more research is being done on how the brain works and how students learn, in which great design can work in unison with educators to create the next generation of knowledge based learners.

The audience of professionals, educators and school superintendents and students were able to see new trends in education and design and it's impact on the ability for the children of today to be an impact on the world of tomorrow.

First student meetings with HMA, FSB and Amy Yurko skype in conference.



About the Symposium

This symposium gave attendees the opportunity to interact with students, educators, administrators, architects and engineers, interior designers, IT specialists, and others focused exclusively on learning environments. In this ever changing society, the goal is to create spaces that allow students to flourish in their environments. The idea is to promote a broader view of issues related to learning environments. This was a great opportunity to enjoy the latest in educational facility design.

KeynoteSpeaker

Uniting Education + Architecture

By: AMY YURKO, AIA

Responsive school environments aren't rigidly defined by square-footage or construction budgets; more importantly, they unite education and architecture by making thoughtful connections between learning and facilities. As schools strive to improve student performance, they must accurately assess their needs as a holistic instructional entity. These needs must then be reflected in the planning and design of instructional space.

Many American schools in use today were built in a time when direct instruction was believed to be the most effective educational practice. These buildings were planned and designed for educating youth in an era of industrial growth and factory-style efficiency. Accommodations for differently-abled children were scarce. Differences in skills, abilities and interests among students was minimized in exchange for the value of conformity. Not surprisingly, school facilities designed and built to support this approach resembled factories where

the cellular regularity of identical classrooms offered little stimulation of imagination, support of creativity, or recognition of varied learning styles. These facilities were not built to promote academic success of all students, but instead were effective environments for only a select few learners.

Fortunately, much has changed over the past century and what we know about the human brain and

learning has dramatically increased in recent years.

Research on aspects of learning such as social, physiological and neurological functions have pointed to more holistic perspectives of human learning and development. Learning environments that better align with current findings on brain-based learning can offer their students, teachers, parents and communities much, much more

than traditional direct-instruction pedagogy.

The keynote presentation laid the framework for the symposium by illustrating the importance of understanding how people learn and how the design of physical environments can inspire powerful learning for all students.



More About Amy

Amy Yurko is the founder of BrainSpaces and the recipient of the coveted CEFPI School Planner of the Year award in September of 2011. She is both a licensed architect and educator who believes in applying brain-based strategies to the design of learning environments. Amy has developed a keen understanding of the challenges in education today and how they can be addressed through effective learning environments.

Her thoughtful integration of education, learning and architecture allows for fresh approaches to programming and planning as well as accurate translations of educational goals into clear and effective directions for school facilities.

For nearly 25 years she has planned and designed meaningful places for learners throughout the country and around the world. She has participated in the development of over one billion dollars of public and private, domestic and international school projects, ensuring that best practices in educational facility planning and design are considered throughout the project's development.

A recognized expert in her field, Amy is consistently invited to teach, speak, write and participate in design juries and summits.

As designated advocate for curriculum strategies on the national American Institute of Architects' Board Knowledge Committee, she led efforts to strengthen continuing education for its 80,000 members worldwide.



Student Session

BY: FRED SCHMIDT, FAIA, LEED AP AND JOHN BROWN, AIA, DBIA

In order to set the example for student success, we as designers and educators must demonstrate the importance of creativity and collaboration as role models through our interactions with clients and stakeholders. The involvement of University of Oklahoma students in the Symposium was conceived as an interdisciplinary team approach to a design problem that would simulate the tightly entwined real world interaction of professionals. The structure of the program would engage the students in a collaborative problem solving exercise that included academic majors in education, interior design and architecture.

The symposium team of professionals created a program for the student groups to research and then follow through with creative solutions. The challenge was to design an Innovative Learning Environment for the year 2025 for 37 students that would require the teams to envision a model for the ever-changing education system which must in turn respond to the evolving brain of students of all ages.

The first session with the

students started with Amy Yurko leading the groups through the Student Design Charrette objectives and deliverables. The students then discussed the issues of the design challenge and the team of professionals in turn provided ideas and suggestions where the students of the College of Education and College of Architecture could begin their pursuit of the solution.

At the mid-point of the project, Architects from FSB architects engineers planners and Hollis+ Miller Architects visited with the students and listened to their preliminary research ideas and initial solutions to the Design Challenge. The ideas were constructively critiqued and discussed. The teams then continued their collaboration on the challenge and worked towards preparing their final solutions in preparation for a final critique and a verbal presentation.

Four teams of students entered solutions to the design challenge. Prior to the Symposium. The students work was reviewed by an international jury of professionals for their creativity and graphic presentations. On the Day of the

Symposium, each interdisciplinary team presented their final solution to the audience of symposium attendees and the jurors asked questions and commented on the final solutions. The jurors prepared the final portion of their evaluation based on the quality of each team's verbal presentation which was added to their previous evaluation for a final score.

The Symposium attendees who included primary and secondary educators and administrators all agreed that the Design Challenge was a success. The students from both colleges appreciated the opportunity and the helpful expertise of both of their professions in guiding creative solutions for the future of education. The solutions would not have been as well developed if the respective design team participants had worked independently and not in the spirit of Collaboration of each discipline.

“We can't solve problems by using the same kind of thinking we used when we created them.”

Albert Einstein

GuestSpeakers

Safe and Secure

By: JOHN BROWN, AIA, DBIA

Acts of violence by people are very difficult to stop. They key to a successful reduction in a situation of violence is time. Training staff and providing safety measures within a building to buy time for the students and staff until law enforcement can do their duty is critical in these situations.

The mind of school shooter was discussed and typology's were introduced to help see and understand these traits

earlier in one's life to help prevent the fatal event.

Passive and active non-negotiable were presented that should be a part of the design. A discussion ensued about a comprehensive approach that includes people, technology, and design was presented as the tool for security.

Four passive security measures were discussed and five active security measures were discussed that complete the ideal

design for secure buildings.

Finally five take-aways were presented to the audience, since every situation and district is unique.



More About John

John is partner and Vice President at Kansas City based firm, Hollis + Miller Architects. For over 25 years he has been an educational specialist responsible for growing the market of Public K-12 clients in Missouri and Oklahoma. He prides himself in maintaining existing clients and providing leadership and educational direction.

Holistic Healthy Environments that Inspire

By: BILL LANTHAM III

A substantial body of research shows that, for good or ill, a school's social & physical environment has broad influence on students' learning and growth, including major aspects of their social, emotional, and ethical development. Students who experience their school as a caring community consistently become more motivated, ambitious, and engaged in their learning. Schools that provide healthy and "humanized" spaces have fewer issues with truancy, sick days, and even staff wellness.

The forum on High Impact Learning Environments introduced the challenges facing districts today with an aging infrastructure and sweeping changes to their pedagogy and student makeup. The brain science behind learning was presented with specific focus on the differences in the physiological makeup of digital natives.

A further review of the impact of the influx of digital natives and the resulting changes to learning environments was addressed. Emerging from

the research, five core design principles for next generation spaces were presented. While these principals are expressed uniquely in different learning communities, their

application to modern learning environments is nearly universal.



More About Bill

Bill is a passionate industry thought leader and education advocate with over 14 years of experience in creating High Impact Learning Environments. He joined Contrax in 2001 and was part of the leadership team that transformed the company's mission into giving every community the opportunity to have world-class learning environments.

COLLABORATIVE INTERDISCIPLINARY teams show creativity



Student Launch session

Charrette Design Objective

Create an Innovative Learning Environment For 2025:

- What does it look like?
- How does learning happen?
- How does education practices and architectural space work in unison?
- How does this space transform learning?
- Environment must accommodate 37 learners.

Charrette Deliverables

Solutions should be two fold;

- An electronic PowerPoint format
- A poster 24" x 36" (portrait orientation) that captures the intent of the project. Each team will use their poster to exhibit their design intent during the OU Education Symposium held at the National Weather Center.

Students will present their project design concept and learning objectives in a word document not to exceed 8 pages, per MLA format.

- An intro page is required with the following information:
- What is the space intended to do?
- How did you solve the objective?
- How does the space transform learning?
- How did your team collaborate?

TEAM 1

Dalaney Files
Emily Gilliland
Luke-Henry Hahn
Nazanin Seyed Hosseni
Doye Johnson
Megan Lawson
Wang Moge
Laney Vela

TEAM 3

Ann Kietz
Sarah Ramos
Jheri Ross
Supatra Villegas
Qian Wang
Wei Yin

TEAM 2

Jacob Lemley
Kory Myers
Xinyun Peng
Xiaolu Wu
Yanyi Yoong

TEAM 4

Yan Wang
William Huffman
Melissa Reddout
Hannah Hussing
Caty Townsend
David Huor

Judges



FRED SCHMIDT, FAIA, LEED AP
PRINCIPAL
FRANKFURT SHORT BRUZA ASSOCIATES, P.C.
OKLAHOMA CITY, OK

GOLAM MOHAMMAD MOHIUDDIN
CHIEF TECHNOLOGY OFFICER
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DHAKA, BANGLADESH



JOHN BROWN, AIA, DBIA
VICE PRESIDENT
HOLLIS + MILLER ARCHITECTS
LEE'S SUMMIT, MO

KIRK HORNER
PRESIDENT
HOLLIS + MILLER ARCHITECTS
OVERLAND PARK, KS



AMY YURKO, AIA
FOUNDER
BRAINSPACES, INC.
CHICAGO, IL

FIRST PLACE

TEAM 2

The Learning Environment (LE) Team 2 designed is a learning hub supporting both individual and collaborative learning. It is designed as several functional units that can be assembled together as an integrative structure and fit into a given space. It is like a kit, the user can use whichever pieces to create their own LE, depending on the conditions of the space provided. The learning idea of a mobile classroom close to nature is exceptional. This set up should have an impact on the mindset of the students to engage them in learning more, it also creates an amalgam between the nature and the students and thus breaks the traditional classroom concept surrounded by walls and windows.

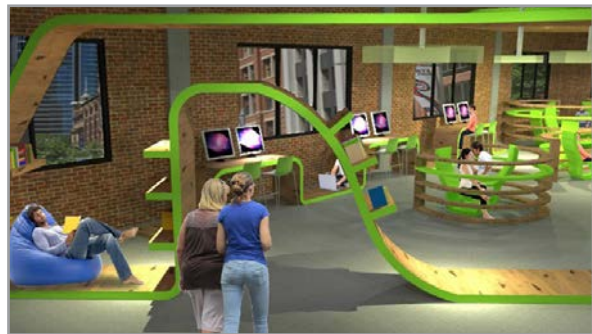


“ This solution was very ambitious and used the notion of a learning environment to the fullest extent by terming it a “whole learning environment.” The components were nicely thought out and each one was tied to educational concepts and learning styles. ”

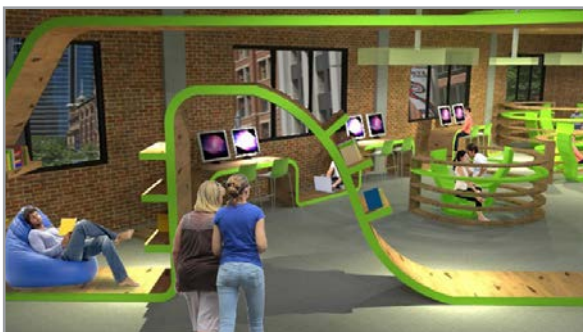
JURY COMMENTS



THE CRANK - GROUP LEARNING



THE GRIND - LIBRARY SPACE



THE PELOTON - STUDIO LEARNING ENVIRONMENT



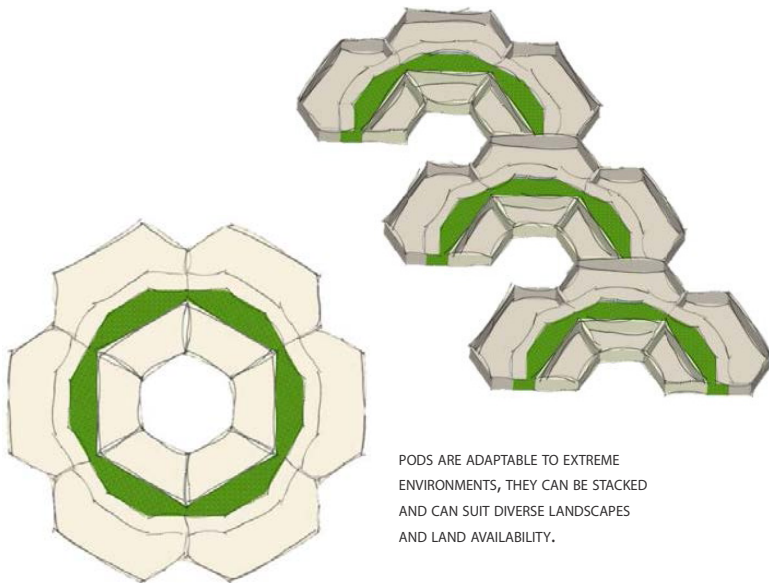
THE TUBE - AUGMENTED REALITY AND VIRTUAL INTERACTION

SECOND PLACE - TEAM 3

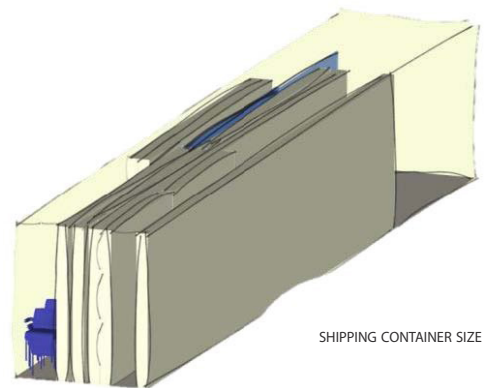
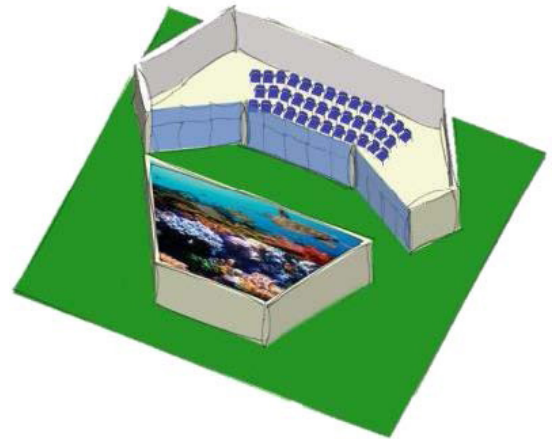


Team 3's learning environment can be adapted into a large learning environment, such as an auditorium, smaller learning environments that can be used for small group discussion, or a hands-on learning laboratory environments.

Since the furniture and walls are movable and flexible, various small learning spaces can accommodate different types of learners. For example, some learners are kinesthetic. Teachers can group them together and take a hands-on approach to introduce new knowledge to their learners.



PODS ARE ADAPTABLE TO EXTREME ENVIRONMENTS, THEY CAN BE STACKED AND CAN SUIT DIVERSE LANDSCAPES AND LAND AVAILABILITY.



SHIPPING CONTAINER SIZE



The design solution was modular and able to grow as needed.

The presentation conveyed their concept well.



JURY COMMENTS

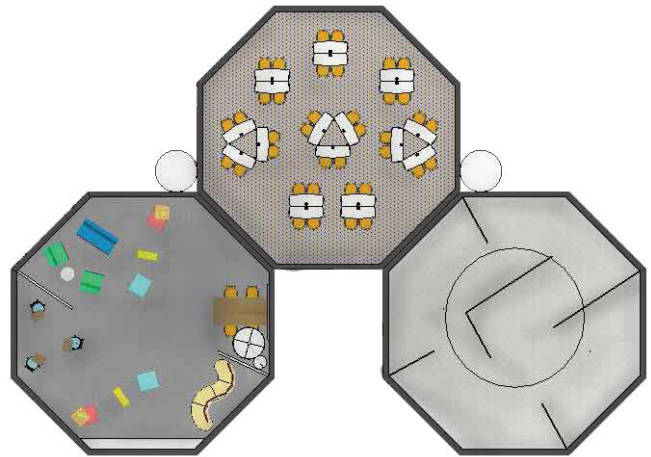
THIRD PLACE - TEAM 4



Team 4 designed a 3-pod construct to optimize efficiency of space and materials used and be easily constructible. These pods consist of three main octagonal rooms that meld together and can be repeated infinitely. A unique inverted roof construction promotes water collection especially in drought prone areas while also creating shade throughout interior courtyards. A variation on the roof system would be to utilize green roofs and solar panels in order to optimize heat reduction, food productions, and energy collection. Walls may be snapped together enabling a variety of wall types and thicknesses to adapt to programmatic requirements and interior connections.



ACTIVITY SPACE



FLOOR PLAN

ACTIVITY SPACE - COLLABORATIVE SPACE - IMMERSIVE SPACE



COLLABORATION SPACE

“ This team did the best job of looking into the future and combined solutions focused on the delivery of education as well as architectural solutions. They incorporated ideas of energy efficiency and water reclamation. ”

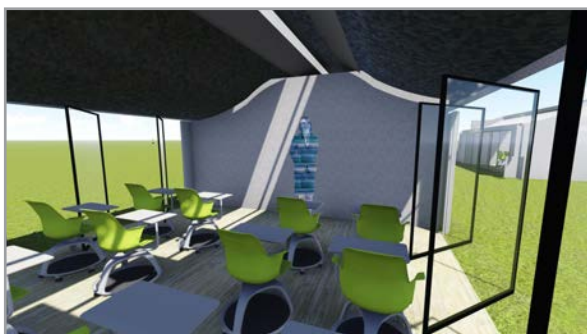
JURY COMMENTS

FOURTH PLACE - TEAM 1



Group 1's intention was to create an innovative environment with a mobile classroom that can be transported by a flatbed truck. These trailers will have some interesting technology integrated into it to facilitate the gardening aspect.

Since this is a green environment, they chose to incorporate solar panels into the design so that the students can learn about the environment and its processes on plant life and the future.



DOUBLE POD



SINGLE POD



SIDE VIEW



The written material explored and analyzed learning constraints and proposed new learning philosophies and approaches that were better suited to the 21st century learner and 21st century challenges. Research and proposed environments were well documented.



JURY COMMENTS

ANATOMY OF A Symposium



Save the Date

EDS worked with the college of Education and Architecture for about twelve months prior to the OU Symposium becoming a reality. In Mid-July the Education Design Studio team reached out to Oklahoma district superintendents and educators to invite them to this event. We also worked with students to get them engaged with the event through a design charrette exercise.

Brochure

Sent out to school districts, faculty, professionals and OU research personnel.



Schedule

7:30 - 8:15	Registration
8:15 - 8:30	Symposium Introductions
8:30 - 9:30	Student Design Charrette Presentations
Break	
9:45 - 11:45	Key Note Speaker: Amy Yurko
12:00 - 12:45	Lunch Educational Furniture Presentation
1:00 - 1:45	Panel Discussion: Security for Schools
1:45 - 2:30	Panel Discussion: Safety for Schools
Break	
2:45 - 3:30	Research Discussion: Healthy Schools
3:30 - 4:00	Student Charrette Scholarship Awards
4:00	Reception

CE Units

The Panel Discussion and Research Discussion sessions are eligible to receive Continuing Education credits that have been applied for with the State Department of Education.

Student Charrette

The design objective for the Student Charrette will be to create an innovative Learning Environment for 2025. Students are asked to consider the following:

- What does it look like?
- How does learning happen?
- How does education practices and architectural space work in unison?
- How does this space transform learning?
- Students will present their designs at the symposium.

POSITIVELY IMPACTING EDUCATION THROUGH DESIGN

Amy Yurko

Amy Yurko is the founder of BrainSpaces and the recipient of the coveted Council of Educational Facilities Planners International (CEFPi) School Planner of the Year award in September of 2011. She is both a licensed architect and educator who believes in applying brain-based strategies to the design of learning environments.

Amy has developed a keen understanding of the challenges in education today and how they can be addressed through effective learning environments. Her thoughtful integration of education, learning and architecture allows for fresh approaches to programming and planning as well as accurate translations of educational goals into clear and effective directions for school facilities.

Registration

Are you interested in participating in the Educational Research Design Symposium? Registration is FREE online at:

www.MonitorOklahoma.com/DesignSymposium

Don't miss out on the opportunity to network and enhance your professional development!

Registration Packet

Each participant received a FSB registration packet.



Website

Monitor Oklahoma hosted the website and online registration for the symposium. Monitor Oklahoma is an independent, nonprofit organization that obtains and distributes data; and examines issues, trends and events affecting Oklahoma's primary and secondary education system.

Monitor Oklahoma's mission is to enable you to discover, engage with, share and discuss information about your state's public schools.

Educational Research Design Symposium 2014

Posted on July 22, 2014 by krystenmarshall

EDUCATIONAL RESEARCH DESIGN SYMPOSIUM

Positively Impacting Education through Design

KEYNOTE SPEAKER

AMY M. YURKO

Principal + Founder // BrainSpaces, Inc.

2011 COUNCIL OF EDUCATIONAL FACILITY PLANNERS INTERNATIONAL PLANNER OF THE YEAR

FORUM TOPICS

*Design Promoting Imagination, Creativity and Collaboration
Safe / Secure Spaces
Healthy Environments That Inspire*



Frankfurt Short Bruza
Hollis + Miller Architects

IN ASSOCIATION WITH
Monitor Oklahoma
OU College of Architecture
OU Jeanine Holcomb College of Education
OU Research Program Development & Enrichment
South Central Comprehensive Center
Central Comprehensive Center
EDS Center

National Weather Center
Norman, Oklahoma

SAVE THE DATE

Friday // October 17, 2014 // 7:30 AM - 4 PM

LOOK FOR MORE INFORMATION TO FOLLOW.
The University of Oklahoma is an equal opportunity institution. www.ou.edu/eds // This publication was printed and distributed at no cost to the taxpayers of Oklahoma.

The Educational Research Design Symposium will be held on Friday, October 17th from 7:30am-4pm at the National Weather Center in Norman, Oklahoma. Forum Topics, led by keynote speaker Amy M. Yurko, will include Design Promoting Imagination, Creativity and Collaboration, Safe / Secure Spaces, and Healthy Environments that Inspire. The event is hosted by Education Design Studio, an education planning and design collaboration between Frankfurt Short Bruza Associates, P.C. and Hollis + Miller Architects.



MONITOR OKLAHOMA

Creativity and Collaboration

By: FRED SCHMIDT, FAIA, LEED AP

As Education moves forward into the 21st Century, creativity and collaboration are two distinct actions that we must be able to engage in as we design educational spaces for students and teachers that allows them to excel in our ever-changing world. In order to set the example for student success, we as designers and educators must demonstrate the importance of creativity and collaboration as role models through our interaction with educators, students and stakeholders.

The spaces we design can in turn take on the characteristics and attributes of creativity and collaboration to allow the learner to be engaged in the many facets of learning styles that will empower them to excel. Allowing learners to discover their own learning styles will keep them engaged in life-long learning along with exploring the value of the minds of many through teamwork to solve problems yet to be discovered.



More About Fred

As an AIA Fellow and Principal of FSB's Education Design Studio, Fred has worked with multiple school districts to develop K -12 curriculum based on multi-discipline and multi-subject creative problem solving. Creating learning environments that impact both design and education is something that Fred is dedicated to incorporating into projects. He conveyed this message at the Symposium by emphasizing the importance of learning spaces being flexible and supporting multi-subject challenges that will prepare children for real world experiences.

Closing Remarks

The inaugural Research Design Symposium focused on the future of K through 12 education achieved all of the goals and objectives set forth by the organizers. It was held on the research campus of the University of Oklahoma and was attended by educators, administrators, professors, professionals and students. Significant and timely topics affecting education and the quality of the learning environment were presented.

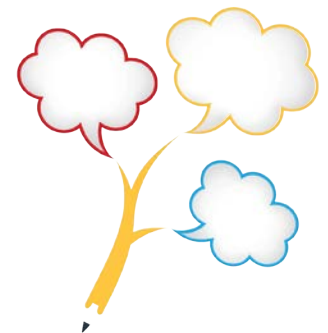
The involvement of interdisciplinary teams of college students was an added bonus for the symposium attendees as well as providing a unique learning experience for the students. Education Design Studio would like to thank the Deans of each College for making this a reality, as well as the professors who were champions for their students. We understand that this was a project that was above and beyond the regular curriculum of the semester, yet everybody made time to participate

in this special opportunity to be creative thinkers for the future.

We would also like to thank the Symposium sponsors for generously donating time and funding for this event which allowed the Symposium to be offered at no cost to attendees. \$8,000 was given out in student Scholarships as a result of their generosity.

It is Education Design Studio's goal is to continue to organize and offer these type of events that integrate the different

professional disciplines who when united together will make a difference in the education system for future generations. It is through these types of efforts we can positively impact education through Design.



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Session Sponsors



