



---

# **Choice & Innovation Subcommittee**

**Wednesday, October 21, 2015**

**9:00 AM – 11:00 AM**

**306 HOB**

## **Action Packet**

**Steve Crisafulli**  
Speaker

**Manny Diaz**  
Chair

# Committee Meeting Notice

## HOUSE OF REPRESENTATIVES

### Choice & Innovation Subcommittee

**Start Date and Time:** Wednesday, October 21, 2015 09:00 am  
**End Date and Time:** Wednesday, October 21, 2015 11:00 am  
**Location:** 306 HOB  
**Duration:** 2.00 hrs

Presentations on Developmental Research Schools

Presentation on McKay Scholarship Program

**NOTICE FINALIZED on 10/14/2015 2:52PM by Miller.Derek**

**COMMITTEE MEETING REPORT**  
**Choice & Innovation Subcommittee**  
**10/21/2015 9:00:00AM**

**Location:** 306 HOB

**Summary:** No Bills Considered

# COMMITTEE MEETING REPORT

## Choice & Innovation Subcommittee

10/21/2015 9:00:00AM

**Location:** 306 HOB

**Attendance:**

	<i>Present</i>	<i>Absent</i>	<i>Excused</i>
Manny Diaz, Jr. (Chair)			X
Janet Adkins	X		
Dennis Baxley	X		
Colleen Burton			X
Robert Cortes	X		
Reggie Fullwood			X
Larry Metz	X		
W. Keith Perry	X		
Elizabeth Porter	X		
Irving Slosberg	X		
Cynthia Stafford	X		
Richard Stark	X		
Charlie Stone	X		
<b>Totals:</b>	<b>10</b>	<b>0</b>	<b>3</b>





## HOUSE OF REPRESENTATIVES COMMITTEE ATTENDANCE ROLL CALL

The Committee on Choice & Innovation Subcommittee

met at 9:00 AM o'clock on 10-21-15 with the following attendance:

<u>Member</u>	<u>Present</u>	<u>Absent*</u>	<u>Excused</u>
Chair Diaz			✓
Vice Chair Stone	/		
Ranking Member Stark	/		
Rep. Adkins	✓		
Rep. Baxley	✓		
Rep. Burton			✓
Rep. Cortes	✓		
Rep. Fullwood			✓
Rep. Metz	✓		
Rep. Perry	✓		
Rep. Porter	✓		
Rep. Slosberg	✓		
Rep. Stafford	✓		



**Florida House of Representatives**  
*State Representative Colleen Burton*  
*District 40*

District Office:  
100 S. Kentucky Ave., Suite 260  
Lakeland, Florida 33801  
863-413-2640  
863-413-2642 (Fax)  
colleen.burton@myfloridahouse.gov

Tallahassee Office:  
1301 The Capitol  
402 S. Monroe  
Tallahassee, Florida 32399  
(850) 717-5040

The Honorable Manny Diaz  
Chairman, Choice and Innovation Subcommittee  
312 House Office Building  
The Capitol – 402 S. Monroe  
Tallahassee, Florida 32399

Dear Chair Diaz:

I respectfully request that I be excused from the Choice and Innovation Subcommittee meeting of Wednesday October 21, 2015, being held from 9:00 AM to 11:00 AM.

I would like to attend the Foundation for Excellence in Education 2015 National Summit on Education Reform that is being held in Denver Colorado October 22 and 23.

Thank you for your consideration.

Sincerely,

A handwritten signature in blue ink that reads "Colleen Burton".

Colleen Burton  
District 40

cc: Kathy Mizereck Senior Staff Director

**Committees:** Transportation & Economic Development Appropriations; Choice and Innovation Subcommittee; Health & Human Services Committee; Judiciary Committee; Civil Justice Subcommittee



# *Florida House of Representatives*

*Representative Reggie Fullwood*

*District 13*

October 19, 2015

The Honorable Manny Diaz, Jr.  
Chair, Choice & Innovation Subcommittee  
313 House Office Building  
402 South Monroe Street  
Tallahassee, Florida 32399

Dear Chairman Diaz:

I respectfully request to be excused from the Choice & Innovation Subcommittee the morning of October 21, 2015 in order to attend a national education conference in Denver, Colorado. As Ranking Member on the House Education Committee, I feel that this conference will be very beneficial to attend.

Thank you,

A handwritten signature in black ink, appearing to read "Reggie Fullwood".

Reggie Fullwood

Cc:

Honorable Charlie Stone, Vice Chair  
Jean Healy, Policy Chief  
Ann Gilliam, Senior Administrative Assistant

**COMMITTEE MEETING REPORT**  
**Choice & Innovation Subcommittee**

**10/21/2015 9:00:00AM**

**Location:** 306 HOB

**Presentation/Workshop/Other Business Appearances:**

Chambers, Stacy (State Employee) (At Request Of Chair) - Information Only  
Florida State University Schools  
Executive Director  
Florida State University School 3000 School House Road  
Tallahassee FL 32311  
Phone: 850-245-3712

Peter Carafano (State Employee) - Information Only  
Florida High School  
Instructor  
3000 School House Road  
Tallahassee FI 32311  
Phone: 850-510-9298

Alivia Carlton - Information Only  
Florida High School  
Student  
3000 School House Road  
Tallahassee FI 32311  
Phone: 850-245-3712

Tammy Ferguson (State Employee) (At Request Of Chair) - Information Only  
A.D. Henderson University School/FAU High School  
Principle/Director  
777 Glades Road  
Boca Raton FI 33431  
Phone: 561-297-3970

Evan Calark - Information Only  
FAU High School  
Student  
777 Glades Road  
Boca Raton FI 33431  
Phone: 561-297-3970

Tricia Meredith (State Employee) - Information Only  
FAU High School  
Assistant Research Professor  
777 Glades Road  
Boca Raton FI 33431  
Phone: 561-297-3970

Sabah Ali - Information Only  
FAU High School  
Student  
777 Glades Road  
Boca Raton FI 33431  
Phone: 561-297-3970

**COMMITTEE MEETING REPORT**  
**Choice & Innovation Subcommittee**

**10/21/2015 9:00:00AM**

**Location:** 306 HOB

**Presentation/Workshop/Other Business Appearances: (continued)**

Robyn Rennick (At Request Of Chair) - Information Only  
The Coalition of McKay Scholarship Schools  
Board Member  
5246 Centerville Rd  
Tallahassee FL 32309  
Phone: 850-893-2216

Dr. Patricia Hodge (State Employee) (At Request Of Chair) - Information Only  
FAMU Developmental Research School  
Superintendent  
400 W Orange Ave  
Tallahassee FL 32307  
Phone: 850-412-5930

Florida's Developmental Research Schools  
Hayes, Lynda (State Employee) (At Request Of Chair) - Information Only  
Developmental Research Schools  
Director  
P.K. Yonge DRS, UF 1080 SW 11 Street  
Gainesville Florida  
Phone: 352-392-1554



34419352



### COMMITTEE/SUBCOMMITTEE APPEARANCE RECORD

Please fill out the entire form and submit two copies to the committee/subcommittee administrative assistant at the meeting.

Bill Number: N/A

Meeting Date: Oct 21 2015 9:00AM

PCB/PCS/Amendment # or Presentation/Workshop Topic: N/A

Committee/Subcommittee: Choice & Innovation Subcommittee

Name: Chambers, Stacy

Title: Executive Director

Address: Florida State University School, 3000 School House Road

City: Tallahassee State/Zip: FL 32311

Phone Number: 850-245-3712

Representing: Florida State University Schools

Registered Lobbyist: No

State Employee: Yes

I Wish To Speak: No

I Have Been Requested To Speak: Yes

	Bill	Amendment
	N/A	N/A





# COMMITTEE/SUBCOMMITTEE APPEARANCE RECORD

Please fill out the entire form and submit two copies to the committee/subcommittee Administrative Assistant at the meeting.

*Type or Print Clearly*

Bill Number: \_\_\_\_\_ Meeting Date: 10/21/15

*Fill in appropriate information:*

PCB/PCS/Amendment # or Presentation/Workshop Topic: \_\_\_\_\_

Committee/Subcommittee: \_\_\_\_\_

Name: Peter Caratano

Title: Instructor - Florida High School (FSUS)

Address: \_\_\_\_\_

City: Tallahassee State/Zip: Fl., 32311

Phone Number: 850-510-9298

Representing: FSUS - Florida High School

Registered Lobbyist: YES  NO  State Employee: YES  NO

I Wish To Speak: YES  NO

I Have Been Requested to Speak: YES  NO

Bill		Amendment	
Proponent <input type="checkbox"/>	Opponent <input type="checkbox"/>	Proponent <input type="checkbox"/>	Opponent <input type="checkbox"/>
Info Only <input type="checkbox"/>		Info Only <input type="checkbox"/>	



# COMMITTEE/SUBCOMMITTEE APPEARANCE RECORD

Please fill out the entire form and submit two copies to the committee/subcommittee Administrative Assistant at the meeting.

*Type or Print Clearly*

Bill Number: \_\_\_\_\_ Meeting Date: 10/21/15

*Fill in appropriate information:*

PCB/PCS/Amendment # or Presentation/Workshop Topic: \_\_\_\_\_

Committee/Subcommittee: \_\_\_\_\_

Name: Alivia Carlton

Title: Student - Florida Highschool (FSUS)

Address: \_\_\_\_\_

City: Tallahassee State/Zip: FL/32311

Phone Number: (850) 850-245-3712

Representing: Florida Highschool (FSUS)

Registered Lobbyist: YES  NO

State Employee: YES  NO

I Wish To Speak: YES  NO

I Have Been Requested to Speak: YES  NO

Bill		Amendment	
Proponent <input type="checkbox"/>	Opponent <input type="checkbox"/>	Proponent <input type="checkbox"/>	Opponent <input type="checkbox"/>
Info Only <input type="checkbox"/>		Info Only <input type="checkbox"/>	





# COMMITTEE/SUBCOMMITTEE APPEARANCE RECORD

Please fill out the entire form and submit two copies to the committee/subcommittee Administrative Assistant at the meeting.

Type or Print Clearly

Bill Number: \_\_\_\_\_ Meeting Date: 10-21-15

Fill in appropriate information:

PCB/PCS/Amendment # or

Presentation/Workshop Topic: \_\_\_\_\_

Committee/Subcommittee: Choice and Innovation

Name: Timmy Ferguson

Title: Principal/Director A.D. Henderson University School / FAU High School

Address: 177 Glades Road

City: Boca Raton State/Zip: FL 33431

Phone Number: 561-297-3970

Representing: FAU University Schools

Registered Lobbyist: YES  NO

State Employee: YES  NO

I Wish To Speak: YES  NO

I Have Been Requested to Speak: YES  NO

Bill		Amendment	
Proponent <input type="checkbox"/>	Opponent <input type="checkbox"/>	Proponent <input type="checkbox"/>	Opponent <input type="checkbox"/>
Info Only <input type="checkbox"/>		Info Only <input type="checkbox"/>	



### COMMITTEE/SUBCOMMITTEE APPEARANCE RECORD

Please fill out the entire form and submit two copies to the committee/subcommittee Administrative Assistant at the meeting.

*Type or Print Clearly*

Bill Number: \_\_\_\_\_ Meeting Date: 10-21-15

*Fill in appropriate information:*

PCB/PCS/Amendment # or

Presentation/Workshop Topic: \_\_\_\_\_

Committee/Subcommittee: Choice and Innovation

Name: Tricia Meredith

Title: Assistant Research Professor, FAU Highschool

Address: 777 Glades Road

City: Boca Raton State/Zip: FL 33431

Phone Number: 561-297-3970

Representing: FAU High school

Registered Lobbyist: YES  NO  State Employee: YES  NO

I Wish To Speak: YES  NO

I Have Been Requested to Speak: YES  NO

Bill		Amendment	
Proponent <input type="checkbox"/>	Opponent <input type="checkbox"/>	Proponent <input type="checkbox"/>	Opponent <input type="checkbox"/>
Info Only <input type="checkbox"/>		Info Only <input type="checkbox"/>	



# COMMITTEE/SUBCOMMITTEE APPEARANCE RECORD

Please fill out the entire form and submit two copies to the committee/subcommittee Administrative Assistant at the meeting.

Type or Print Clearly

Bill Number: \_\_\_\_\_ Meeting Date: 10-21-15

Fill in appropriate information:

PCB/PCS/Amendment # or

Presentation/Workshop Topic: \_\_\_\_\_

Committee/Subcommittee: Choice and Innovation

Name: Evon Clark

Title: Student

Address: 777 Glades Road

City: Boca Raton State/Zip: FL 33431

Phone Number: 561-297-3970

Representing: FAU High School

Registered Lobbyist: YES  NO

State Employee: YES  NO

I Wish To Speak: YES  NO

I Have Been Requested to Speak: YES  NO

Bill		Amendment	
Proponent <input type="checkbox"/>	Opponent <input type="checkbox"/>	Proponent <input type="checkbox"/>	Opponent <input type="checkbox"/>
Info Only <input type="checkbox"/>		Info Only <input type="checkbox"/>	



# COMMITTEE/SUBCOMMITTEE APPEARANCE RECORD

Please fill out the entire form and submit two copies to the committee/subcommittee Administrative Assistant at the meeting.

*Type or Print Clearly*

Bill Number: \_\_\_\_\_ Meeting Date: \_\_\_\_\_

*Fill in appropriate information:*

PCB/PCS/Amendment # or

Presentation/Workshop Topic: \_\_\_\_\_

Committee/Subcommittee: Choice and Innovation

Name: Sabah Ali

Title: Student

Address: 777 Glades Road

City: Boca Raton State/Zip: FL 33431

Phone Number: 561-297-3970

Representing: FAU High School

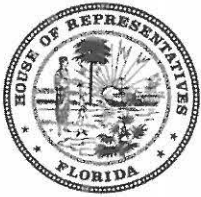
Registered Lobbyist: YES  NO

State Employee: YES  NO

I Wish To Speak: YES  NO

I Have Been Requested to Speak: YES  NO

Bill		Amendment	
Proponent <input type="checkbox"/>	Opponent <input type="checkbox"/>	Proponent <input type="checkbox"/>	Opponent <input type="checkbox"/>
Info Only <input type="checkbox"/>		Info Only <input type="checkbox"/>	



# COMMITTEE/SUBCOMMITTEE APPEARANCE RECORD

Please fill out the entire form and submit two copies to the committee/subcommittee Administrative Assistant at the meeting.

Type or Print Clearly

Bill Number: \_\_\_\_\_ Meeting Date: 10-21-15

Fill in appropriate information:

PCB/PCS/Amendment # or

Presentation/Workshop Topic: \_\_\_\_\_

Committee/Subcommittee: Choice + INNOVATION

Name: Robyn A Rennick

Title: Board member The Coalition of McKay Scholarship Schools

Address: 3246 Centerville Rd

City: Tallahassee State/Zip: FL 32309

Phone Number: 850 893-2216

Representing: McKay Scholarship

Registered Lobbyist: YES  NO

State Employee: YES  NO

I Wish To Speak: YES  NO

I Have Been Requested to Speak: YES  NO

Bill		Amendment	
Proponent <input type="checkbox"/>	Opponent <input type="checkbox"/>	Proponent <input type="checkbox"/>	Opponent <input type="checkbox"/>
Info Only <input type="checkbox"/>		Info Only <input type="checkbox"/>	



### COMMITTEE/SUBCOMMITTEE APPEARANCE RECORD

Please fill out the entire form and submit two copies to the committee/subcommittee Administrative Assistant at the meeting.

*Type or Print Clearly*

Bill Number: \_\_\_\_\_ Meeting Date: 10-21-15

*Fill in appropriate information:*

PCB/PCS/Amendment # or

Presentation/Workshop Topic: \_\_\_\_\_

Committee/Subcommittee: Choice and Innovation

Name: Dr. Patricia Kedge

Title: Superintendent FAMU Developmental Research School

Address: 400 W Orange Ave

City: Tallahassee State/Zip: FL 32307

Phone Number: 850-412-5930

Representing: FAMU DRS

Registered Lobbyist: YES  NO

State Employee: YES  NO

I Wish To Speak: YES  NO

I Have Been Requested to Speak: YES  NO

Bill		Amendment	
Proponent <input type="checkbox"/>	Opponent <input type="checkbox"/>	Proponent <input type="checkbox"/>	Opponent <input type="checkbox"/>
Info Only <input type="checkbox"/>		Info Only <input type="checkbox"/>	



25311805



### COMMITTEE/SUBCOMMITTEE APPEARANCE RECORD

Please fill out the entire form and submit two copies to the committee/subcommittee administrative assistant at the meeting.

Bill Number: N/A

Meeting Date: Oct 21 2015 9:00AM

PCB/PCS/Amendment # or Presentation/Workshop Topic: Florida's Developmental Research Schools

Committee/Subcommittee: Choice & Innovation Subcommittee

Name: Hayes, Lynda

Title: Director

Address: P.K. Yonge DRS, UF, 1080 SW 11 Street

City: Gainesville State/Zip: Florida 32601

Phone Number: 352-392-1554

Representing: Developmental Research Schools

Registered Lobbyist: No

State Employee: Yes

I Wish To Speak: No

I Have Been Requested To Speak: Yes

	Bill	Amendment
	N/A	N/A





# Florida's Developmental Research Schools: The Future of Education in Practice

STATE UNIVERSITY SYSTEM / DEVELOPMENTAL RESEARCH SCHOOLS / 2013-14 ANNUAL REPORT



**FAU**



**UF** UNIVERSITY of  
**FLORIDA**







# Florida Atlantic University

FAU/Alexander D. Henderson University School (ADHUS)

FAU/High School (HS)

## Making Waves in Education

Florida Atlantic University has two developmental research schools in Palm Beach County sharing the three-fold mission of providing demonstration sites for teacher education, developing curricula, and conducting research to facilitate students achieving their full potential. The Alexander D. Henderson University School (ADHUS) is a public elementary through middle school. Florida Atlantic University High School, (FAU HS), serves grades 9-12.

Both ADHUS and FAU HS serve as research sites for FAU's colleges and departments, the public schools and the private sector as well as generating school-wide action research projects. ADHUS, which holds departmental status in FAU's College of Education, provides service to practitioners in the field through professional visitations, workshops, demonstrations and teaching tapes. The school is a site for statewide, in-service clinical educator training.

Florida Atlantic University High School is an exemplary public school governed by FAU. Featured in U.S. News & World Report among the best high schools in the nation, this highly selective program serves as a dual-enrollment prototype. Ninth-grade students spend the year in a typical high school classroom setting, taking advanced coursework, which prepares them for grades 10-12 where all classes are collegiate classes taken at the university for both high school and college credit. There is no charge for university tuition, lab fees, or books. In addition to a rigorous academic opportunity, FAU High School provides a broad athletic program, supports a variety of clubs, encourages service learning and competes in state and national academic contests. Students typically graduate from FAU HS with three years of college credits. Some will have even received a bachelor's degree.



### 2014 Dual Graduate

Through FAU High School's dual certification program, Grace Bush, 16, earned her bachelor's degree in criminal justice from FAU one week before she received her high school diploma from FAUHS. Grace begins her graduate work in public administration in fall 2014. She plans to continue on to law school, aiming high for a career with the U.S. Supreme Court. FAU High students typically can earn up to 90 college credits by the time they graduate.

**Fast Facts:**  
FAU/ADHUS  
and FAU/HS

Staff and researchers presented at **7** seven state conferences and **2** two national conferences.

Students and faculty published in multiple outlets on topics including information technology, education research, biological sciences, and literature.

**\$78,000** in grants received by teachers and students for research in mechanical and electrical engineering, robotics, 3D design and other fields.



# University of Florida

## P.K. Yonge Developmental Research School



# Leading the Way in Education Innovation

With a diverse student population of 1,150 students in K-12 classrooms, P.K. Yonge, the University of Florida's DRS based in Gainesville, develops innovative educational solutions to prepare Florida's students for bright futures in academia or the workforce. P.K. Yonge focuses on educating of the whole child by integrating technology across campus, providing STEM opportunities in engineering and robotics, and offering enrichment activities including athletics, speech and debate, international exchanges, and an award-winning performing arts program.

A few of the school's recent successes have drawn national and international attention. A video crew from Edutopia.org, an arm of the George Lucas Foundation, spent a week on campus in April filming "What makes P.K. Yonge work," featuring blended learning, and small-group learning communities. A few weeks later, a film crew from Harvard University's Graduate School of Education featured P.K. Yonge's learning community model and its new, beyond-state-of-the-art elementary wing in a video. Harvard will use the video in its new open-access online course as an example of future learning and best practices of educational design.

P.K. Yonge, with its UF College of Education affiliation, implements research-based outreach programs, and presents at local, state, national and international conferences. The school's groundbreaking work in developing a highly successful, well-attended professional learning series provides "proof of concept" of the Developmental Research School potential to lead Florida's schools.

**Fast Facts:**  
P.K. Yonge DRS

**\$5M**

**National Science Foundation grant** received by collaborating faculty researchers at UF's College of Education and P.K. Yonge the U-FUTuRES project prepares 36 science-teacher leaders to transform 6th-8th grade science instruction in their districts.

More than

**45**

**P.K. Yonge educators gave presentations** at state and national professional conferences in 2013-14.

**27**

**high school courses blending online and face-to-face instruction** will be available at P.K. Yonge for the 2014-15 school year as part of the school's Waves of Innovation initiative.

On the 2014 End-of-Course assessments, **96% of P.K. Yonge students passed Algebra 1, 95% passed 9th grade Biology, and 94% passed Geometry.**



FSUS DRS administration and faculty presented more than 30 trainings and workshops at state, national, and international conferences.

UF's P.K. Yonge DRS faculty and staff gave 34 presentations in 2013-14 at state and national professional conferences.

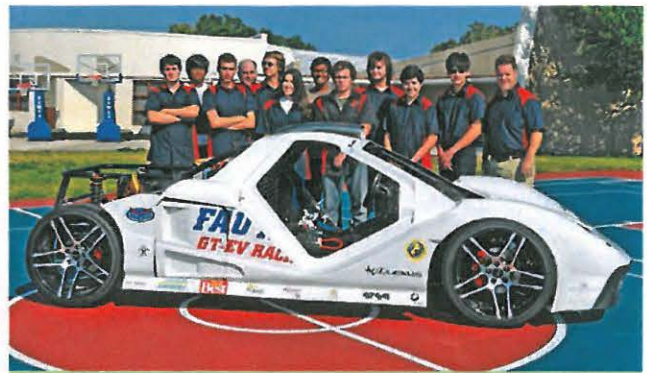
## Publications: Faculty and Students

Laboratory school research and academic advances often make their way into peer-reviewed journals, books and other publications when conducted with collaborators from their affiliated education colleges and universities.

FSU's Dr. Victor Sampson was the lead author on the first in a series of books released from the National Science Teacher Association press earlier this year. The book guides teachers in the use of Argument Driven Inquiry, a method developed at FSUS to improve science education in high schools and middle schools. FSUS faculty and students contributed to the book and were a part of developing ADI. (*Read more on the ADI program, page 13.*)

In 2014, four of FAU's faculty or students published in professional journals, books, literary magazines, or conference publications on subjects from biology, mathematics instruction, and curriculum planning to literature.

Several P.K. Yonge teachers were featured in books, including Mickey MacDonald's inquiry into the ways she integrated a blended learning environment into her high school biology class and the opportunities it created, in *The Reflective Educator's Guide to Classroom Research*. Dr. Gary Boulware's inquiry into the ways a "Guaranteed C" grading policy might help increase access to his AP classes is featured in *Digging Deeper in Action Research*.



## GT Supercar Mechanical Research

**FAU High School student:** Liam Francis, junior

**Faculty mentor:** Allan Phipps, FAU College of Education

At FAU High School, students are designing, testing and analyzing a GT-EV Electric Supercar alongside FAU's undergraduates. Upon graduation, engineering undergraduates must know more than just theory. Teaching our future leaders skills applicable to the real world and how to apply these skills in the workplace is an equally important objective of this project to that of building the car. By analyzing the characteristics of electric cars and their future capabilities, this research addresses the question whether electric cars are a viable means of transportation from the various perspectives of the consumer, the environment and a business standpoint. High school students participate in research conducted by undergraduate students, but also conduct their own research, fabricate their own theories and expand the pipeline of STEM education for research and commerce in our global market.



## U-FUTuRES at P.K. Yonge: Making Science Class Fun – and Relevant – Again

Through an ambitious education reform effort called U-FUTuRES (UF Unites Teachers to Reform Education in Science), P.K. Yonge and UF College of Education researchers are answering a national call for schools to build a science pipeline to promote the development of scientific thinking and success in STEM fields.

This new approach, which encourages science courses and careers, is also establishing success in the future by bringing teacher training to some 400 middle school science teachers in Florida.

Led by principal investigator and P.K. Yonge director Lynda Hayes, U-FUTuRES is a collaborative research project funded by a \$5 million grant from the National Science Foundation Math Science Partnership. The joint UF/PKY project is designed to develop highly trained science teachers who will improve students' scientific thinking and depth of science knowledge by changing how the subject is taught in the middle school grades.

At the core of U-FUTuRES is a powerful, reform-based curriculum called Investigating and Questioning our World through Science and Technology, or IQWST. The curriculum, developed and tested over 10 years at the University of Michigan and Northwestern University, gives students more hands-on exposure to science and reinforces science concepts as students advance through the grades. The curriculum design has students conducting daily investigations of science phenomena, and learning how to use scientific reasoning to support their claims, while advancing their problem-solving and critical thinking skills.

To prepare teachers who can educate and energize other teachers in their home districts with this new kind of science education, the researchers created the UF Science Teachers Leadership Institute, where teachers earn a master's degree in science education in two years. By blending online and on-site instruction by UF professors, the institute prepares a cadre of highly trained science teacher leaders at middle schools in 10 school districts around the state. Then, to more widely share their research and best practices, researchers also partner with the UF Center for Pre-collegiate Education, the Palm Beach School District and the Northeast Florida Education Consortium.





The school's emerging mathematics education agenda is focused on success for all students in K-8 math. UF math and statistics education professor Tim Jacobbe is helping P.K. Yonge teachers and students transition to the new, more stringent Florida Standards in math education, and the school's updated curriculum includes rigorous high school

courses such as AP Statistics, newly offered in 2013-14 with an 86 percent passing rate.

## FAU ADHUS/HS DRS: Stepping Up in STEM Education

Existing STEM projects at FAU's developmental research schools (SeaPerch Underwater ROV, Pulsatrix Robotics and the GT-EV project) introduce students to mechanical and electrical engineering, marketing, and business strategies while working cooperatively with team members to meet deadlines. The Carl D. Perkins grant, worth \$23,000, provides opportunities for teachers to participate in STEM-related conferences and workshops.

For the past two years, ADHUS principal Tammy Ferguson, in partnership with Learning Sciences Marzano Center, has spearheaded the implementation of the Marzano Teacher Evaluation Model. Six ADHUS-FAU High School teachers participated in a research project led by Learning Sciences International (an FLDOE subcontract awardee) to test links between teachers' instructional practice and subsequent student achievement.

## The Florida Astronaut Challenge: From Simulation to Launch

The State of Florida Astronaut Challenge, a statewide competition with a three-day final held at the Kennedy Space Center, challenges students to master textbook materials from the Student Astronaut Challenge Manual and apply that knowledge to solve problems of aerospace science. FSUS DRS developed the program with contributions from NASA, the Florida Department of Education, local businesses, and community volunteers.

The Astronaut Challenge's textbook materials came from a project originally launched by a \$10,000 FLDOE grant to the FSUS science department to build a mobile space flight simulator. The simulator was the core of a research project designed to see if virtual immersion could help to develop students' problem-solving abilities and group communications, and foster interest in STEM in the classroom.

When students and researchers successfully completed the mobile space flight simulator, the instructional team looked for exciting ways to share the instructional methods and information, and the simulator itself. The student Astronaut Challenge was born.

The State of Florida Astronaut Challenge starts with three regional competitions held across Florida. Five-person student teams separately take a written exam based on a textbook developed for the challenge that includes the basics of terrestrial and space flight, the history of rocketry, the basic physics of flight and the operation of the retired NASA space shuttle. Their scores are averaged into a final team score and then the teams are ranked by region. The top 12 teams are invited to the state competition, where each student team must solve an engineering challenge related to the space shuttle or International Space Station, conduct and demonstrate an experiment typical of an International Space Station investigation and perform the duties of mission control and the launch, orbit and landing of the Space Shuttle Enterprise flight simulator. The team with the highest average score of all three events wins the title.

Last year, the third year of the challenge, 390 students participated in the regionals and 80 students qualified for the finals.

Teachers also benefit. Each team has a teacher/coach who attends a weekend training session at FSUS in Tallahassee. The Florida Department of Education approves all training activities for use as continuing education hours through the instructors' home school district.

FSUS will continue to use the Astronaut Challenge as a vehicle to disseminate the instructional system that has been developed to help engage students in science and foster interest in STEM-related fields.





P.K. Yonge DRS has played an integral role in a UF program to train upcoming teachers about literacy methods to help students with dyslexia. Between 15 to 20 percent of students in Florida schools have some degree of dyslexia, but teachers are typically unprepared to address their needs.

In the summer of 2013, UF special education professor Dr. Holly Lane began an intensive block of three graduate-level courses for students in a dual certification — elementary and special education — track of the College of Education's Unified Elementary ProTeach program to gain this experience.

As part of their practicum experience, UF education students work with P.K. Yonge students during the Summer Adventures in Literacy program (SAIL). These courses help UF teacher candidates to learn evidence-based practices for assessment and intervention for students with significant reading disabilities, with the focus on dyslexia. P.K. Yonge teachers in the SAIL program supervise the practicum experience and serve as expert models for the pre-service teachers. In addition, students from other public schools in the region come to P.K. Yonge to receive intensive, one-on-one tutoring from the UF students.



## Argument Driven Inquiry at FSUS

ADI is an instructional model developed at FSUS and led by Dr. Victor Sampson that uses laboratory experiences to help students across middle and high school science classrooms learn science content, while reinforcing scientific thinking. This new model asks students to take a new approach to acquiring information and gives them an opportunity to learn how to read, write, and speak in the context of science. Rather than taking a textbook approach, where kids must follow a specific set of instructions to get a specific outcome, students are instead encouraged to think and learn like scientists, to discover their own questions and use a logic method to find the answer.

The three-year project, funded with over \$1 million from the federal Institute of Education Science, provided training to six science teachers in biology, chemistry, life science and physical science. As part of this initial training, teachers not only learned the instructional model, but also participated in writing investigations they then piloted in their classrooms. These investigations encourage students to generate an argument that articulates and justifies an explanation for a research question as the result of their investigation. Using the ADI instructional approach not only addresses the Next Generation Sunshine State Science Standards but also standards that are associated with mathematics and language arts.

Through the results of this study, the ADI instructional model has now been adopted by many of the major school districts in Florida including Miami Dade, Bay and Pinellas counties. School districts in other states including Texas and Michigan are also looking at adopting ADI as an instructional option in their middle and high school science classrooms. Findings from this project have been shared at the National Association for Research in Science Teaching Conference, the American Educational Research Association Conference, Florida's FCR STEM Conference, and the National Science Education Conference. The first in a series of books guiding teachers in the use of ADI was released from NSTA press in the past year.





## Professional Learning Communities

ADHUS/FAUHS is implementing differentiated professional development through Professional Learning Communities, which helps teachers enhance skills as needed to fulfill their goals. Each self-selected PLC group determines learning goals for themselves and for their students, creates a series of learning events (observation, video, book study) and sets a timeline that will guide them toward their goal. Evidence of improvements in teaching and student learning are collected and shared with colleagues. Research has supported this reform-minded professional development as having the most impact on teaching.



## Online Support

FSUS CPALMS Charter and state CPALMS staff have partnered with Public Consulting Group in creating school-based, self-paced online professional development modules designed to assist charter schools in transitioning to the new Florida Standards. The project increased dissemination and modeling of best practices from Highly Effective Charter Schools. FSUS teachers and administration posted virtual tours, discussion boards and comment streams, news briefs, and best practices webinars. Approximately 45 video lessons have been posted on the CPALMS Charter site. FSUS teachers were also trained to be expert reviewers and lesson plan developers in an effort to create standards-based lessons. Teachers from all over the world utilize these lessons.



## Multi-Tiered Systems of Support

P.K. Yonge has acquired a reputation for quality, hands-on, classroom-focused professional development that directly addresses challenges faced by today's educators. P.K. Yonge's Multi-Tiered Systems of Support is the foundation of its K-12 effort to collaborate to meet the needs of each child. P.K. Yonge's MTSS/Response to Intervention system now includes students and teachers in all grade levels.

At quarterly, grade-level Student Success Team meetings, all faculty receive ongoing training and support. Together the assistant principals, learning community leaders, MTSS specialist, school psychologist, school counselors and classroom teachers collaborate to analyze student data and make plans to adapt instruction and interventions to meet students' academic and behavioral needs. Students in need of additional instruction are identified and academic, social, and behavioral interventions are planned and monitored. The team also develops enrichment opportunities for students exceeding benchmarks or in need of a challenge (e.g., gifted and talented students).

Job-embedded, in-class coaching and support is provided to assist teachers in planning and implementing research-based, standard, response-intensive instructional and behavioral interventions.







## Presentations

Educators from 30 Florida school districts, South Carolina, Canada, Abu Dhabi, China, Belize, Paraguay and Venezuela traveled to P.K. Yonge during the 2013-14 school year to observe in classrooms and consult with teachers. The feedback from educators participating in P.K. Yonge Research in Action days, Summer Scholars Academy, workshops and conferences is consistently and enthusiastically positive. In the academic year, P.K. Yonge led 43 state, one national, and three international learning institutes on literacy, teaching and learning in 21st century spaces, reading and writing, professional learning, and transforming mathematics, for more than 300 participants.

## Global Exchanges

P.K. Yonge has created a student exchange program with the Nanjing Experimental International School, a university-affiliated laboratory school in China much like Florida's four developmental research schools. In a series of trips, four P.K. Yonge educators have led 31 P.K. Yonge students to China and, in exchange, the school community hosted 39 Chinese students in two visits to Gainesville.

## Online Resources

Beginning in fall 2014, the DRS schools will jointly launch a free, quarterly e-publication, the *Florida Lab School Journal*. Coordinated and edited by FSUS's literacy coach, the journal will inform Florida's educators about best practices being designed and tested in Florida's developmental research schools. Themes for the first two issues are Establishing School and Classroom Communities, and Technology and its Use in the K-12 Classroom.



## FSUS Program Keeps Florida's Charter Schools in the Educational Loop

### Collaborate, Plan, Align, Learn, Motivate, Share

Today Florida has more than 600 charter schools enrolling more than 200,000 students. CPALMS Charter (CPALMSCharter.org) was created as online learning community to allow charter school teachers the opportunity to collaborate and share best practices. This free online resource not only offers teaching materials, lesson plans and project ideas for all grade levels and all subject areas; the constantly evolving site also provides charter school leaders and teachers with access to Florida State Standards, discussion forums and tips on best practices.

Created in 2012 by FSUS and led by principal investigator Dr. Lynn Wicker – in partnership with the state's existing CPALMS program (an online clearinghouse for learning materials for public school administrators, teachers, students and parents) – CPALMS Charter evolved in response to a Florida Department of Education initiative and was funded through the FL DOE Office of Independent Education and Parental Choice/Charter Schools.

CPALMS Charter also provides professional development for Florida's charter schools. The project manager for CPALMS Charter has held more than 40 training sessions for educators, including webinars, face-to-face meetings and conference sessions since its inception. The training reached more than 1,300 participants, plus an undocumented number of participants who viewed training through social media. Regional coordinators for CPALMS have conducted more than 15 additional training sessions at Florida charter schools.

Reaching teachers in another format, CPALMS Charter hosted a social studies retreat in early 2014. Thirty-five participants from across the state converged in Tallahassee for the three-day training on CPALMS Charter, CPALMS and methods to contribute resources to the website.

Taking advantage of Web technology to build statewide professional knowledge and capabilities, CPALMS Charter encourages teachers to upload content to the site, where it is thoroughly vetted and then shared with other teachers.



## 21st Century Waves of Innovation

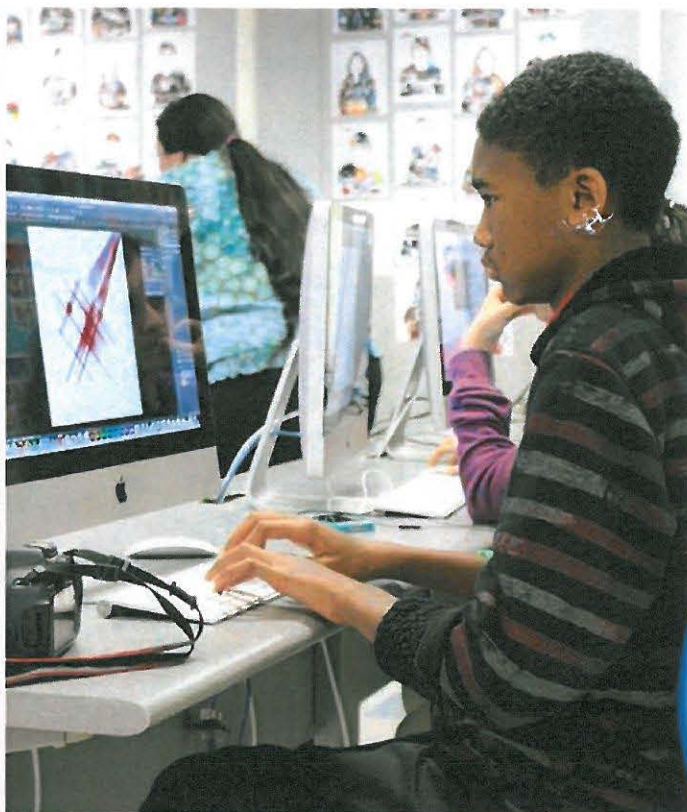
At P.K. Yonge, curriculum — as well as teaching and learning models appropriate for the 21st century learner — drive the implementation of new technology in the classroom. Recent technology initiatives have, in part, been designed with the knowledge that a transition to a new 21st century campus is imminent, with a new, prototype elementary school building already occupied by young students and their teachers.

Blended-learning, which combines the use of online and classroom education, creates classrooms that fully integrate technology across the curriculum through hands-on exposure to the latest hardware, software and successful learning strategies. Blended learning can include anything from online access to information off-site, to in-class use of interactive white boards, iPads or computers.

Faculty members have produced 27 robust, frequently accessed and sustainable online high-school courses for the 2014-15 school year through a multi-step design process project called *Waves of Innovation*. The project (2011-present) invites faculty to craft proposals to develop technology-supported learning designs that are grounded in individualized instruction, provide learning assessments, supply 24-7 access to content, and are flexible enough so students can use them anytime, any place.

Faculty members identify questions or curriculum gaps, and describe the implications for what effect the addition of technology would have on teaching and learning first. They then pinpoint how that information could best be delivered with the assistance of technology — either online or face-to-face. Important goals of each project submission also include students developing skills of self-directed learning, personal responsibility, autonomy and access to educational content outside the classroom.

Each school year presents opportunities to share the work at P.K. Yonge through conferences, presentations and outreach. During a poster session at the FETC conference in early 2014, P.K. Yonge's work on blended learning piqued the interest of *Edutopia.org* — an education website published by the George Lucas Foundation. The group spent five days filming at P.K. Yonge, and will feature the school on its website (<http://www.edutopia.org/schools-that-work>) that highlights best practices and case studies from K-12 schools and districts that are improving the way students learn.



## Digital Citizenship

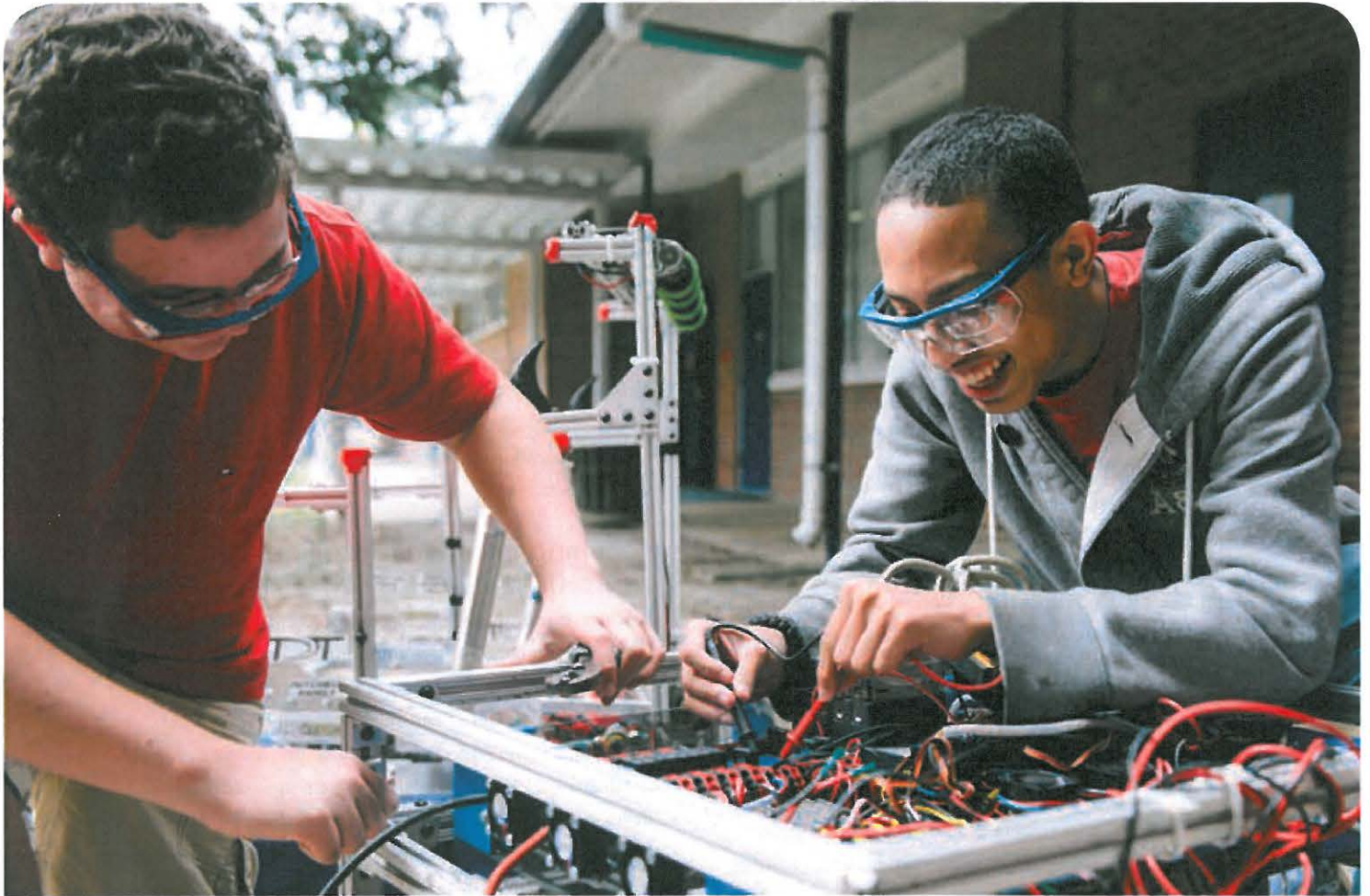
Using the Digital Citizenship Curriculum from Common Sense Media, FAU ADHUS elementary students learned digital literacy and citizenship. The school had one Digital Citizenship Certified Educator for 2013-14 and will apply to be a Common Sense Media Certified School for the 2014-15 school year.

For 2014-15, ADHUS STEAM Lab students will participate in Earthenware Explorations. Working with an FAU professor in art education, students will learn the science, technology, engineering, art, and math behind ceramics. From 3D printing rollers to using the pottery wheels, students will learn how there is more to clay than meets the eye.



# Florida's Developmental Research Schools: The Future of Education in Practice

STATE UNIVERSITY SYSTEM / DEVELOPMENTAL RESEARCH SCHOOLS / 2014-15 ANNUAL REPORT



**FAU**



**UF** UNIVERSITY of  
**FLORIDA**



# Florida's Developmental Research Schools: THE FUTURE OF EDUCATION IN PRACTICE



Dr. Hodge



Dr. Ferguson



Dr. Wicker



Dr. Fender Hayes

Florida's four developmental research schools, and their affiliations with research universities, are unique assets to Florida. As required by the Sid Martin Bill, our students are selected by lottery to be representative of Florida's K-12 student population. Given the student body's relatively low mobility rate, the developmental research schools are particularly well-positioned to generate research that can inform solutions to the persistent educational challenges Florida schools face. The developmental research schools serve as incubators to design and test new approaches for improving K-12 education, as well as demonstration and training sites for Florida's aspiring and practicing educators. Our schools are highly involved with their respective Colleges of Education as they transform their teacher and professional educator preparation programs.

In fact, efforts underway in all four developmental research schools during the past year reflect the priority areas for growth in the K-12 schools they serve — technology, engineering, career pathways, early literacy, social emotional learning, science, and mathematics. Developmental research school faculty, many times in partnership with university researchers, design and test new educational approaches intended to make a difference for students. From the formative mathematics assessments at Florida State University School, to leading a transformation in science teaching practices at P.K. Yonge DRS, to students at Florida Atlantic University High School partnering with FAU researchers to create a robotic glove for a young child in need, to health and wellness research at Florida A & M University Developmental Research School—all of these efforts not only make a difference for DRS students, but also have tremendous potential for making a difference for all of Florida's students.

As we look to the future, the developmental research school faculty will continue to build partnerships with our affiliated universities and submit proposals for research funding in response to our emerging needs and insights. It is this research that has the potential to generate new insights about how policy can shape and improve practice and outcomes; how carefully designed interventions can improve academic achievement for a diverse group of students; how schools can be organized to maximize available resources, and how curriculum innovations can improve student engagement and learning outcomes. Serving as demonstration sites and training labs for their undergraduate and graduate students, our developmental research schools provide a unique stage for preparing students and educators for Florida's future.

*Dr. Patricia Hodge, Superintendent*  
(Patricia.hodge@famu.edu)  
Florida A & M University DRS  
**Florida A & M University**

*Dr. Tammy Ferguson, Principal/Director*  
(Tfergu10@fau.edu)  
A.D. Henderson University  
School/FAU High School  
**Florida Atlantic University**

*Dr. Lynn Wicker, Director*  
(lwicker@fsu.edu)  
Florida State University Schools  
**Florida State University**

*Dr. Lynda Fender Hayes, Director*  
(lhayes@pky.ufl.edu)  
P.K. Yonge DRS  
**University of Florida**

# Florida Atlantic University

Alexander D. Henderson University School, Palm Pointe Educational Research School at Tradition, Florida Atlantic University High School

## Making Waves in Education

Florida Atlantic University has three public developmental research schools located in Palm Beach and St. Lucie counties. Each of these schools fulfills a three-fold mission of providing demonstration sites for teacher education, developing curricula, and conducting research to facilitate students achieving their full potential.

Both the Alexander D. Henderson University School and Palm Pointe Educational Research School at Tradition serve students in kindergarten through eighth grade, while Florida Atlantic University High School serves students in grades nine through 12. Florida Atlantic University Schools is proud to support the university's vision to foster relevant research, quality education, and outreach to the community. Teachers and students engage in research at many levels. FAU High School has been featured in the *U.S. News & World Report* as being among the best high schools in the nation and serves as a dual-enrollment prototype. All three schools serve as research sites for FAU's colleges and departments, as well as public and private sector research initiatives.



### 1,500

Over 1,500 students from the south Florida community were served through STEM Outreach in 2014-15.

### 100%

of FAU High's Class of 2015 qualified for Bright Future Scholarships.

### \$4.3 million

grant was awarded to Florida Atlantic University's College of Education to establish a Center of Excellence for Elementary Teacher Preparation.

### 27

faculty members presented at local, state, and international conferences.

### 10,000

Over 10,000 hours of collaboration with university pre-service teachers.

### 5,599

College credits were earned by the FAU High School class of 2015 (73 seniors).



# University of Florida

## P.K. Yonge Developmental Research School

## Leading the Way

P.K. Yonge Developmental Research School at the University of Florida serves a diverse population of 1150 students from kindergarten through 12<sup>th</sup> grade. Mandated to reflect the demographics of Florida's student population, P.K. Yonge designs, tests, and disseminates best practices in K-12 education for all students in the state and across the nation.

P.K. Yonge's work on the evolving mission of university laboratory schools as developmental research schools was featured in *Education Week* February 25, 2015.

Interest in the elementary building's architectural style — and the curriculum programs that bring it to life — continues to expand. The school has hosted school planners from around Florida and as far away as South Carolina, California, Colorado, Virginia, Belize, New Zealand, Israel, Chile, and China, who often spend multiple days observing P.K. Yonge teachers and curriculum in action.

P.K. Yonge's non-profit partners in curriculum development have also led to tremendous national exposure through both face-to-face and virtual outreach opportunities for interested educators. The Literacy Design Collaborative promoted the *Strategies for Improving Academic Writing* workshop, and the school director and elementary curriculum leader were invited to attend a convening in Washington, D.C., hosted by the Center for the Collaborative Classroom. Research activity continues to expand across the school campus. Topics of investigation include technology use, student engagement, user interface on digital devices, public health and obesity prevention, academic writing, science achievement among underrepresented populations, and early interventions to prevent school failure.



### \$231,000

K-12 student Dominique Erney, salutatorian, graduated in 2015 with highest honors and was accepted at Harvard University, with a \$215,000 Harvard Faculty Scholarship and a \$16,000 National Merit Corporate Scholarship.

### 87

total conference presentations by P.K. Yonge faculty: 61 local; 15 state; 8 national, and 3 international.

### Top 3%

P.K. Yonge ranked in *US News and World Report* List: High School Ranking, in the nation's top 10 percent and in *Washington Post America's Most Challenging High Schools 2015* in top 3 percent.

### 139,830

number of views of the 5 videos posted by Edutopia featuring P.K. Yonge as a School That Works.

### 10,354

number of participants in HarvardX Leaders of Learning course featuring a video series about the new elementary model.

### 17,584

number of views of P.K. Yonge produced videos about the state-of-the-art elementary building.



## Student-led Research Leads to Real-World Solutions

FAU High School recently launched a new research program to enable motivated students to get involved in research. The research program exposes students to research and scholarly inquiry in a variety of disciplines, especially those in the STEM fields, in order to ignite their personal curiosity. The multi-course program guides and supports students through learning basic, widely used research skills, helping them find a faculty mentor at FAU, and facilitating their research experience with that mentor.

After developing their own research interests, students are given the tools to follow their curiosity through the research process step-by step. This includes introducing the students to research being conducted at FAU and other research institutes, developing a research project proposal, finding research



funding, data analysis, and presenting and publishing research results. FAU High students involved in this program will take advantage of integrated opportunities available through FAU's Office of Undergraduate Research and Inquiry, such as research workshops, the Undergraduate Research Grant, and the Undergraduate Research Symposium.

## Making Waves in Research at the High School Level

FAU High student John Sousa, 17, conducted biomedical research at FAU with Dr. Rui Tao in the College of Medicine and later with an external research group investigating public health. His research has focused on the effects of drugs on the physiology of the brain. John recently co-authored a manuscript that was published in April in the *New England Journal of Medicine*. The article is titled "Increasing Incidence of the Neonatal Abstinence Syndrome in U.S. Neonatal ICUs." His research with Dr. Tao has also been accepted for publication in the *Journal of Video Experiments*. John graduated with both his high school diploma and his Bachelor's degree in Neuroscience and Behavior from FAU in May of 2015 and plans to attend medical school following a year of continued research.



John Sousa

## Collaborations Making Waves

An example of ongoing multi-disciplinary research at P.K. Yonge is **The Steelcase Active Learning Center Grant**, awarded to a team comprised of P.K. Yonge faculty and UF faculty in the College of Design Construction and Planning and the College of Education. Collaborators will be investigating the influence of furnishings and pedagogy on discourse patterns in the classroom. The team hopes to generate new theories about active classrooms and high school experiences in the 21st century. By tracking the frequency and type of physical behaviors occurring within a classroom furnished with a certain type of furniture and integrated technology, researchers hope to be able to answer whether some furniture arrangements result in more active engagement with content and learning activities than others. They also hope to learn whether the furniture and the arrangements of furniture promote engagement with content and learning activities, improvement in academic achievement, and better supports for social and emotional needs of students.





## Creating Diverse Digital Classrooms through a Digital Classroom Plan

Through a Digital Classrooms Plan DOE initiative, FAUS District received more than \$518,000, which was exclusively expended on various forms of technologies and digital tools to refresh outdated technology and enhance digital instruction at Palm Pointe, A.D. Henderson, and FAU High.

Comprehensive data collected from FAUS staff, teachers, and stakeholders for the creation of the Digital Classrooms Plan identified resources and updates needed at Palm Pointe. Palm Pointe directed their resources toward refreshing campus technology through the purchase of new laptops for students and teachers, as well as a classroom audio visual projection cart for use around the school.

For ADHUS and FAU High, the focus was to provide teachers and students with a variety of current digital tools to foster instructional innovation and improved student achievement. An additional grant provided an opportunity for extensive professional development for ADHUS and FAU High teachers on the use of new and existing technology.

## Academic Writing – Literacy Design Collaborative

P.K. Yonge educators have been leaders in the transition to Florida Standards through a partnership with the National Literacy Project and the Literacy Design Collaborative. Since 2012, teachers at P.K. Yonge have collaborated with local, state, and national partners to redesign curriculum

and provide a context for meaningful professional learning. The Literacy Design Collaborative uses an easily understood and supportive framework that helps teachers collaborate, plan, and share high quality rigorous lessons. Through these state and national partnerships, the P.K. Yonge faculty is engaged in innovative lesson design and instructional practice. Project goals ensure that Florida's students benefit from high-quality instruction and engagement in meaningful learning

tasks. P.K. Yonge teachers open their classrooms to educators from districts and schools in Florida and beyond, to support the growth of a national teacher network dedicated to similar goals. This year's P.K. Yonge LDC Research in Action Day was filled to capacity with external audiences able to log into a live stream. Modules developed through this work are shared across the country and students everywhere benefit from the expertise of all teachers engaged in this work.

## Mentoring

The P.K. Yonge Teacher Induction and Mentoring Program is designed to support new-to-P.K. Yonge teachers, while simultaneously developing teacher leadership. Mentors are selected and assigned with attention to grade level and subject area, proximity on campus, and teacher effectiveness.

Relationships between mentors and mentees are established quickly so that collaboration and support can begin immediately after a new teacher is hired. The mentoring relationship lasts from one to three years, depending upon the number of years of teaching experience the new-to-P.K. Yonge teacher has had prior to joining the P.K. Yonge faculty.

The school utilizes the FLDOE-selected Marzano iObservation System as a shared vernacular to discuss the domains of Instructional Practice, Planning, Reflection, and Professional Expectations. The Induction and Mentoring Program has been effective in increasing dialogue about instructional practice among the K-12 faculty and has helped create a more collegial teaching and learning environment.





## FAU High Partners to Create Robotic Gloves for Students

Six-year-old Julian Sanchez was born without any fingers on his right hand. This year, two FAU graduate students worked to make the boy's life a little easier.

Classmates Charles Weinthal and Chad Coarsey, 25, worked together to construct robotic gloves using a 3-D printer in FAU High's STEM lab. The gloves allow Julian to have a fully functioning hand. Coarsey was especially thrilled to see Julian receive his hand. "When he put it on, I was immediately overwhelmed with joy," he said. "I'm so happy that I can do this."

Coarsey himself was born without fingers on his left hand, and had been the recent recipient of a robotic glove due to Weinthal's idea. Weinthal had done prior research into 3-D printers. He knew the FAU High School had printers readily available in their Robotics Laboratory.

The graduate students slightly altered the hand model's original design, provided by the non-profit Enabling the Future, and programmed it into FAU High's 3-D printer. The printer assembled the hand one layer at a time using a rubber band-like material that allows the fingers to move.

The high-tech STEM lab is a hub of activity on the FAU High campus, but it was the lab's 3-D printer and its personnel that made the project possible. In addition to gloves, FAU High uses its 3-D printers as part of its STEM program to create robotic devices that teach students about science and engineering, and are frequently entered into competitions.

In the end, a glove takes about 10 hours to print and assemble, and costs only \$100 to make, as opposed to \$42,000 for a professionally made prosthetic hand. The students hope their model will be replicated for those who cannot afford the steep price of prosthetics.

During the year, First Responders provide primary first aid services for high school athletic and community events. CNA students work at least 296 hours per year in various clinical areas to include the FSUS clinic, Tallahassee Memorial Hospital and Capitol Regional Medical Center, as well as Westminster Oaks Nursing Home. Upon graduation, students are qualified to work as a Florida Certified Nursing Assistant and/or First Responder.

Since the successful programs began five years ago, 100 percent of participating students completed and received their certification, either as a Florida First Responder, a Certified Nursing Assistant, or both.

## Interactive Learning for 4-6 Year-Olds

To evaluate academic outcomes of NeuroNet Learning methods, P.K. Yonge partnered with the UF COE School

Psychology program to design and conduct an experimental investigation of NeuroNet's impact on pre-K and kindergarten students' early reading and mathematics skills. Using repetition and movement as pathways to learning, the curriculum engages students in daily 20-minute exercises to enhance fine and gross motor coordination, while developing accuracy and fluency in basic academic skills.

Researchers have collected outcome data and results will be available fall 2015. P.K. Yonge kindergarten and NeuroNet teacher Christine Woods said the students were able to pick up the lessons and build on them each day.

"Students are engaging in daily practice exercises and challenging themselves to improve their own handwriting, listening, and fluency skills," she said. "They are able to quickly and efficiently follow routines in order to maximize NeuroNet fine and gross motor skill practice each day."



## In Partnership, Expanded Reach

Through a partnership with the Center for the Collaborative Classroom, P.K. Yonge's elementary program has expanded its reach far beyond local and state boundaries, while teachers have benefitted from profound professional learning in elementary literacy.

The Center for the Collaborative Classroom is a nonprofit educational organization dedicated to providing continuous professional learning for teachers and curricula that support the academic, ethical, and social development of children.

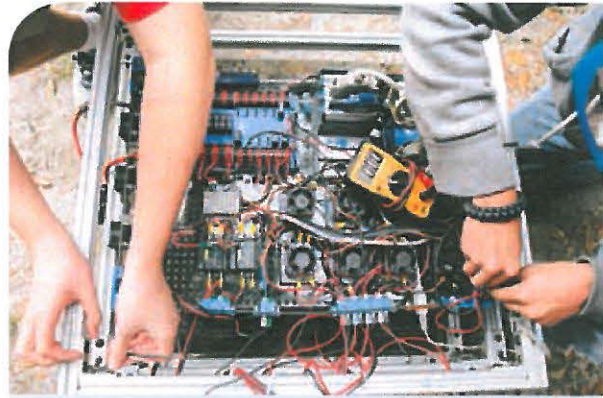
P.K. Yonge teachers have benefitted from CCC's expertise in lesson study models that help bridge teacher learning from theory to practice. In their implementation of the CCC programs, teachers are deepening their own knowledge of reading and writing best practices, and benefitting from the opportunity to study the effects of that implementation on their students. As a result, P.K. Yonge faculty have been held up as exemplars and practitioner scholars working with colleagues around the nation to further implement the Center for the Collaborative Classroom resources in elementary literacy and social emotional learning. With the Center's support, participants from three different states and six districts in Florida attended P.K. Yonge's Research in Action days focused on literacy.

Marisa Stuke, Ph.D., a P.K. Yonge Program Development and Outreach Specialist, said, she sees the collaboration paying off in the classroom. "Students are blossoming as writers through the use of this curriculum," she said.

## Teacher Inquiry

P.K. Yonge's long-standing use of the teacher inquiry method as a professional learning and school reform approach has expanded beyond individual teacher research projects carried out in the confines of a single classroom. This year at P.K. Yonge the number of collaborative inquiry projects grew, encouraging collaborations across divisions and disciplines and expanding the reach of a single project. The largest group was a 7-member collaborative inquiry focusing on standards-based grading in multiple grade levels and disciplines.

This year the model also engaged the whole faculty as contributors to inquiry projects taking place on campus. Led by internationally recognized UF College of Education professor Nancy Dana, and P.K. Yonge faculty member Mickey MacDonald, participants were coached through the inquiry process and shared critical elements in faculty meetings structured for input and collaboration on projects taking place during the 2014-15 school year.



## Learning, Making, Doing

School robotics programs creatively engage students in the vital STEM disciplines. In March, the P.K. Yonge Roaring Riptide FIRST Robotics Team 4118 took first place in the Orlando FIRST Robotics regional competition. The team also won the event's Gracious Professionalism award for supporting another team in the midst of crisis.

The FIRST Robotics competition challenges teams to raise funds, design a team brand, develop teamwork skills, and build and program robots to perform prescribed tasks against a field of competitors in just six weeks. Industry mentors and volunteers lend their time and talents to guide each team.

To add to the team's accomplishment, team president Logan Hickox was named to the FIRST Robotics Competition Dean's List. As one of 20 winners from around the world, Hickox was chosen for his leadership skills, commitment to FIRST ideals, contributions to his team, and effectiveness in increasing awareness of FIRST (For Inspiration and Recognition of Science and Technology) within his school and community. At the championship competition, the Roaring Riptide finished 11th out of 75 teams in its division and competed in the championship play-off.

In addition to his competition success, Hickox became one of the youngest people in the nation to pass the Certified SOLIDWORKS Associate exam—and with a perfect score. This certification is an industry standard that allows holders to use this computer-based mechanical design program on a professional level.

The skills Hickox developed with the Roaring Riptide, such as the ability to work alongside professional engineers and graduate students, communication skills, and to establish relationships with other robotics teams across the state, will help him pursue his future engineering aspirations.



## Healthy Food, Better Students: The Fresh From Florida Campaign

The state's *Fresh From Florida* campaign has a broad mission, which includes encouraging students as well as their parents to consider the benefits of eating meals with fresh and healthy ingredients. From the tree to the lunch line, school menus play a critical role in the campaign. FSUS collaborated with the Florida Department of Agriculture and Consumer Services to create three public service announcements designed to address K-12 students, parents, and school administrators. The widely disseminated ads showcased an elementary-, middle- and high school- aged student making healthy choices on FSUS' campus.



## Drive-in Conference 2015

The Second Annual Florida Developmental Research Schools Drive-in Best Practices Conference continued the work of disseminating best practices throughout the state. Sponsors — including the four developmental research schools, and P.K. Yonge industry partners NeuroNet Learning, Activate Learning, Center for the Collaborative Classroom, and UF's Lastinger Center for Learning — came together to host a one-day conference designed to share innovations developed and tested in the developmental research schools. Over 170 participants from at least 20 districts attended the conference to hear presentations on mastery through movement, creating need in the math classroom, digital portfolios, fostering a growth mindset across ability levels and subject areas, supporting writing of evidence-based scientific explanations in middle school, standard-based grading, and more.

## Research in Action Days

As part of the outreach mission of the school, P.K. Yonge offers professional learning for educators through an academic-year series of Research in Action days that include presentations on best practices, observations in classrooms, and consultations with teachers. This year's eight events welcomed 110 participants from 23 school districts, 18 in Florida and five in Virginia with one event hosting 60 participants and live streaming for online viewers. Topics included Digital Classrooms and Blended Learning, Writing and the Florida Standards for 6th-12th grade, Inquiry-based Science in 4th-8th grade, Connecting the Teacher Evaluation Systems to Collaborative Literacy, Multi-tiered System of

Supports, and Collaborative Literacy. Partners included the Center for the Collaborative Classroom, the Literacy Design Collaborative, the National Literacy Project, and the National Science Foundation U-FUTuRES project.

## Learning Spaces for the 21st Century

P.K. Yonge's innovative elementary building is garnering global interest as a teaching and learning space for the 21<sup>st</sup>-century student. This year, groups from Florida, California, Colorado, Belize, Israel, China, and New Zealand spent time focusing on architecture and professional learning for 21<sup>st</sup>-century learning spaces.

## P.K. Yonge has a Home in Nanjing

Over the course of three years, students and faculty from the P.K. Yonge Developmental Research School and the Nanjing Experimental International School have created a strengthening partnership through cross-cultural exchange programs. Their most recent visit was in March, when nine P.K. Yonge students traveled to China to build friendships, share homes, food, families, lives, and cultural treasures.

"We believe that participating in daily life experiences and making meaningful connections with students and families are two key ways in which people develop global competence," said Julie Henderson, P.K. Yonge's Coordinator of International Relations.

When Chinese students visited Florida in the fall, they accompanied their American partners to academic classes, took classes taught by P.K. Yonge faculty, visited the UF campus and the Florida Museum of Natural History, and took a day trip to the historic sites and beaches in St. Augustine.

The P.K. Yonge Elementary School began weekly Chinese classes for 2nd through fifth grade and a middle-high school Chinese language club that was established to support the student delegation, which travelled to China in the spring.



## Promoting Student Literacy through the Use of E-readers

Multiple research studies have found that the use of e-readers in K-12 education results in improved student reading achievement. At the FAU DRS, one of the innovations that emerged from the 2015 FDOE Digital Classrooms Plan was the purchase of 170 Amazon Kindle Fire Kid's Edition tablets, which were used as e-readers for Kindergarten through 2nd grade students. All K-2 students at the FAU DRS were provided with their own Amazon Kindle Fire Kid's Edition tablet to utilize on a daily basis at school and at home to promote the acquisition of early literacy skills and reading achievement. The e-reader contains thousands of digital books, interactive books, educational apps, and educational videos that promote early literacy skills. The device also has several features including text-to-speech options, manipulation of text size, interactive graphics and animation, and hundreds of picture books that are ideal for young readers. The Kindle e-readers were fully integrated into daily classroom instruction by K-2 teachers during their 90-minute literacy block in school.

## Summer Literacy Adventure

In October, Florida's First Lady Ann Scott visited A.D. Henderson at FAU as part of her Summer Literacy Adventure. The school was one of the five winners of the 2014 First Lady's Summer Literacy Adventure with nearly 1,000 books read during the summer. The First Lady's Summer Literacy Adventure challenged students to read as many books as possible during the summer break. Research shows that children who do not continue reading throughout the summer can lose a month or more of progress made during the school year. To reach their goals, students at

ADHUS were able to check out Kindles for the summer, with which they could access the thousands of books available through the school's digital library.

## Blending Teaching Techniques, 1:1 Devices, and Technology

With a planned personal device initiative at P.K. Yonge, effective strategies for technology integration have become more critical than ever for the next school year. Starting in August 2015, all 6th and 9th graders on the P.K. Yonge campus will be issued a school-owned Chromebook, tightening the focus on blended learning environments to support and extend student learning with and through technology. Work in prior years' Waves of Innovation projects has planted seeds across the secondary campus for sustainable and transformative technology integration. Experience has shown that projects designed to target technology integration are most successful when presented within the framework of more familiar teaching and learning goals. During the 2014-15 school year, the age-old problem of serving a diverse group of learners was brought to the forefront through the lens of differentiated instruction and the Universal Design for Learning strategy. With a UDL focus, P.K. Yonge is creatively using initiatives that faculty members deeply care about to naturally and effectively integrate technology, and to extend the benefits of technology and online content and activities already in use. UDL also pays homage to existing effective non-digital content and activities that will not be supplanted by technology. Couched in terms of teaching and learning principles and needs, the conversation quickly turns to how technology can be a means for achieving teaching goals and technology for teaching and learning becomes a natural process for students and faculty alike.

## Technology Flips FSUS's Classrooms

The flipped classroom is a unique teaching model that has become popular among laboratory schools across the country and is effectively utilized by teachers at FSUS. Instruction at FSUS expands beyond the classroom walls through the use of teacher-made videos that are accessed by students prior to the day of instruction. These videos provide instruction for the following day's lesson and supplies students with constant access to information. The videos are streamed to students so they have access from multiple devices. In fact, FSUS instructor, Emily Jemison, Ed.S., created a blog ([techplaceforteachers@wordpress.com](mailto:techplaceforteachers@wordpress.com)) as well as posted her lessons on YouTube. Based on website analytics, her teaching practices have been disseminated to more than 1,850 viewers and with more than 4,800 minutes watched.

Through the ability to access instruction prior to the lesson, the flipped classroom model also provides an increase of time for student engagement in class, enabling FSUS teachers to differentiate instruction more effectively during the school day.

The FSUS flipped classroom model also allows students' family members greater access to student content to better encourage and instruct their children at home. It also provides an individualized and structured review for students.

