



LEARNING SYSTEMS INSTITUTE  
AT FLORIDA STATE UNIVERSITY

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# ANNUAL REPORT 2022



# LSI Highlights

LSI had a **14.7X** return on investment on every university/state dollar invested in our institute in FY 2021-22

Total expenditures in FY 2021-22 were **\$16.2M** which is a **37.5%** increase from last year

Expenditures/university sponsored faculty position (E&G): **\$2.3M** per permanent faculty position or a **37.5%** increase from last fiscal year

Expenditures/all faculty FTE (C&G and E&G): **\$263K/faculty FTE** or a **48.46%** increase

This past year, LSI's all-time awards exceeded **\$750M**

The LSI faculty and staff have now worked on projects with **44** countries

## Letter From the Director

For over 50 years, LSI has delivered systems that measurably improve the learning and performance of organizations and individuals here in Florida and worldwide. We have had a busy and extremely successful year at LSI, with many accomplishments that make us all proud. With 54 projects in 13 countries, this was a challenging and successful year for our dedicated faculty and staff. We made significant achievements that positively impacted learning worldwide.

LSI maintains project-based teams led by distinguished faculty with a wide range of experience and expertise in many varied disciplines. These multidisciplinary teams develop robust solutions using systems approaches to planning, designing, evaluating, and improving instruction and learning across the globe.

LSI is currently working on international projects with education professionals from Egypt, Lebanon, Malawi, the Philippines, Rwanda, Uzbekistan, and Zambia. We started 15 new projects this year, and our portfolio of research and development grants reached \$63 million in funding, allowing us to surpass the \$750 million mark in lifetime contracts and grant awards. Since the institute's inception, LSI has significantly contributed to education in 44 countries around the globe.

The impact LSI is making here at home and globally is our passion, but to allow our faculty and staff to continue to innovate learning, we know that takes funding. Due to the work done by the LSI team, we had one of our most successful years funding our important work. During the last fiscal year, LSI had a 14.7X return on investment on every university/state dollar invested in our institute, we grew our expenditures



by 38% from the year before, and our awards grew by almost 50%. None of this would be possible without the dedication of the LSI team.

We are driven by the impact LSI has globally and are proud that we can make a difference while embracing the mission and values of Florida State University. The university's mission includes strategic goals of "Academic and Research Excellence," "Entrepreneurship and Innovation," and "Excellence and Reputation." All these goals in FSU's Mission Statement are supported by the work of our team. LSI has a rich history of international research, innovation in building learning systems, literacy and STEM education, and the institute's reputation for excellence has long been established and continues to thrive.

Successfully impacting learning, doing it while generating an ROI over 14X, continuing partnerships with funding agencies that have lasted for years, and staying aligned with the mission of Florida State University, is a true testament to the work being done at the Learning Systems Institute. I am proud to work with this talented, driven, and selfless team of amazing individuals.

A handwritten signature in black ink that reads "Rabieh R".

Rabieh Razzouk  
Director, Learning Systems Institute

## ACCOMPLISHMENTS

### Strengthening Teacher Education and Practice - Malawi

In January, LSI received a cooperative agreement for the USAID STEP activity based in Lilongwe, Malawi. Over the last year, LSI has fully staffed the office in Lilongwe and designed and conducted a Baseline Situation Analysis (BSA) of 10 Teacher Training Colleges (TTCs), one University for Special Needs, one typical university, 10 Teaching Practice Schools, and six pilot Teacher Continuous Professional Development schools. Findings from the BSA were presented to national stakeholders and were used to determine appropriate interventions to take place over the following four years. In the upcoming year, the team will focus on developing an intensive Foundational Literacy Course, delivered to 130 TTC tutors representing all private and public TTCs in Malawi.



### ABC+: Advancing Basic Education in the Philippines

LSI continued supporting the faculty from Bicol University (BU) and West Visayas State University (WVSU) as part of their partnership with USAID-Advancing Basic Education in the Philippines. The FSU team trained the BU and WVSU faculty on delivering the Teaching Beginning Reading course using the module jointly developed with the Filipino teaching faculty. More than 150 undergraduate students enrolled in the Bachelor of Elementary Education took the course. In the upcoming year, FSU will focus on developing an Intensive Literacy Research Methods for Educators Course, delivered to faculty representing BU and WVSU universities and officials from the Philippines Department of Education.



## Uzbekistan Education for Excellence Program

Under the Uzbekistan Education for Excellence Program, funded by USAID, the LSI team provided training, facilitation, and guidance on the development of the new curriculum standards for math, Uzbek language arts, and English as a foreign language. In addition, the LSI team helped the ministry in evaluating, choosing, and customizing textbooks for teaching English as a second language. This is a significant transformation of the education system in the country that will have a very long-lasting effect.

LSI led the development of a digital platform that will

house all the curriculum standards, curricular materials, including textbooks and supplemental resources, and be used by all 300,000 teachers in Uzbekistan. Last year, the platform was launched for a pilot group of teachers, and the LSI team is currently training the ministry's staff on the full version. This system will provide immediate and direct support to all the teachers in Uzbekistan to access materials made available to them by the ministry. This is an unprecedented effort in the country and will certainly bring in a lot of day-to-day support to all teachers by having a one-stop shop for all their curricular needs.



## Lebanon Higher Education Capacity Development

This year LSI continued its partnership with the USAID/Lebanon Higher Education Capacity Development (HECD) Program by welcoming 19 university staff members from Lebanon to Tallahassee. The group spent five days focusing on career development programs, with much of the program hosted by The Career Center at FSU. LSI trained administrators and faculty from 10 Lebanese universities participating in the program. They were provided training and support on building career centers, grant proposal writing and infrastructure setup, design thinking, and other areas.



## Florida Inclusion Network

The primary purpose of the Florida Inclusion Network (FIN) Administration Project is to provide statewide support, consultation, coordination, guidance, and leadership, in collaboration with the Florida Diagnostic and Learning Resources System (FDLRS) Administration Project and the FDLRS Area Center (AC) managers, to the 27 FIN facilitators throughout the state of Florida.

In 2021-22 among the numerous accomplishments was a statewide training and service delivery which included 2,981 events, 20,342 participants, and 35,664 products. The

FIN Network provided 888 technical assistance events through trainings and service delivery to 3,853 families. Students with disabilities (SWD) spending 80% or more time with their peers without disabilities increased from 77.69% (2020-2021) to 78.89% (2021-2022). From October 1, 2021, to June 30, 2022, 415 individuals from 64 Florida districts completed the Building Inclusive Schools, an independent, 10-hour course to learn about best practices for creating and supporting an inclusive school culture. A new online Best Practices for Inclusive Education (BPIE) Assessment system was redeveloped and redesigned to support schools in assessing their status on inclusion.



## Transforming Teacher Education Activity - Zambia

Key accomplishments during year two of the USAID-funded project included completion of the Graduate Foundational Literacy Course as well as the subsequent research symposium, support to six Zambian lecturers to participate in FSU residencies and two Zambian lecturers to participate in master's degree programs, completion of the drafting process for six language and literacy modules for use by pre-service teaching lecturers in Zambian colleges of education and universities, development and piloting of a revised school experience approach along with accompanying guidelines and observation tool, procurement of story books and instructional materials for demonstration schools, and completion of two participatory action research projects with a journal article already submitted for one of the research projects.

# National Reading Program Implementation and Expansion – Malawi

During the past year, LSI has provided intensive capacity development to the Malawi Institute of Education (MIE) through workshops and virtual sessions in this USAID-funded project. Together, we have developed new teacher guides and learner books for English and Chichewa Language Arts classes for grades 5 and 6 to be used in all primary schools across Malawi. Materials were drafted, piloted at 20 primary schools across the country, revised, and refined. Through this process, our team improved the capacity of 10 MIE staff and approximately 80 other professionals (teachers, teacher educators, and curriculum writers) in the areas of literacy education, curriculum development, and monitoring and evaluation. We will support MIE staff and other professionals during the upcoming year to draft, pilot, revise, and refine new Teacher Guides and Learner books for grades 7 and 8.



## Tuzone Gusoma Schools and Systems – Rwanda

Several members of the LSI international team supported the USAID-funded project, implemented by FHI360, based in Kigali, Rwanda. LSI supported the Rwanda Education Board (REB) in rolling out training for a previously developed module on teaching literacy skills in the Kinyarwanda language. The training was delivered to approximately 70 instructors from Teacher Training Colleges (TTCs) across Rwanda. Next, the team completed a Baseline Situation Assessment (BSA) of teacher education programs and a Rapid Situation Assessment (RSA) of the Teaching Practice/School Attachment program being implemented at 16 TTCs. These findings were presented to 50 national stakeholders and used to develop and deliver the first two weeks of a Foundational Literacy Course for TTC tutors who teach Kinyarwanda literacy courses. Approximately 50 TTC tutors have received the first two weeks of training, and this professional development program will continue for two more sessions in the upcoming year. Finally, the LSI team worked closely with the REB to establish a Teaching Practice Advisory Group. This group will review and refine the Teaching Practice Framework, including the materials used by student teachers, mentor teachers, and TTC supervising tutors during the practicum. The revised Teaching Practice Framework will be scaled up to all Teacher Training Colleges in Rwanda.



## Atlanta Problem-Based Learning

FCR-STEM partnered with Time2Give to write a summer camp AgSTEM integrated curriculum that focuses on the global issue of food insecurity. The curriculum was implemented in the summer of 2022 with Atlanta-based middle school students. The curriculum provides a Problem-Based Learning opportunity that delivers a long-term investigation through building code that runs sensors in an aquaponics system while increasing critical thinking skills and computational thinking. Students are challenged to create solutions to help alleviate some of the issues communities face due to food insecurity.

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## Biennial National CGI Conference

The 2022 National Cognitive Guided Instruction (CGI) Conference was chaired by FCR-STEM Associate Director Dr. Rob Schoen and co-chaired by Amanda Tazaz and Claire Riddell. The conference took place in Orlando and more than 400 people attended the from across the U.S. and internationally. One hundred Florida teachers also attended through support from a grant to FSU from the U.S. Department of Education. One of the many outcomes of the conference includes the documentation of individual teachers' CGI stories. The stories complement the research directed by Dr. Schoen, of which there have been four large-scale randomized controlled trials of the CGI program in Florida schools over the past decade.







## Community College Administrator Program

Since 2014, LSI has worked with the U.S. State Department and in partnership with Santa Fe College to conduct the Community College Administrator Program (CCAP). The initiative is intended to enhance international understanding of U.S. community colleges and U.S. community college systems. This year administrators and officials from Egypt and the Philippines have taken part in the project. Overall, approximately 250 individuals from more than 200 institutions in 15 countries have participated in the CCAP.

## Teacher Excellence Initiative - Egypt

The Learning Systems Institute in collaboration with the School of Teacher Education at Florida State University will partner with the Education Development Center, Inc. in the implementation a five-year, \$49.5 million project sponsored by the U.S. Agency for International Development (USAID) to improve pre- and in-service teacher education in Egypt.

The EDC consortium selected to implement the USAID-funded Teacher Excellence Initiative in Egypt includes six partner organizations. There are three international and regional university partners – Florida State University, Arizona State University and American University of Beirut. Other partners include Nahdet Misr, Finance and Banking Consultants International, and Microsoft. The five-year program aims to strengthen education systems in Egypt by providing services to improve the quality and relevance of teacher preparation in public universities.

The Teacher Excellence Initiative project aims to improve the quality of teacher education in Egyptian universities so that teachers have the skills to support



student learning and advance Egypt's Education 2.0 reform. Through this program, USAID will establish undergraduate and graduate degree programs for primary-grade teachers at 15 Egyptian public universities, establish partnerships between U.S. and Egyptian universities, and incorporate education technology in all teaching programs.



# CPALMS

*CPALMS is a unique platform developed to support K-12 education in Florida and used by millions from all around the globe. More than 245,000 K-12 Florida educators and about three million Florida students actively use CPALMS to access educational resources, information to help them teach and learn, and software applications to support them throughout. Over the years, CPALMS has grown to be a platform of tools and continues to increase the level of support it provides to the entire state and the world. During the year, the CPALMS team worked on multiple projects and grants.*

## **CPALMS Impact**

CPALMS now offers 12,000+ high-quality educational resources developed by K-12 educators and FSU faculty. Our team has created more than 1,300 original student tutorials for students to use anytime and anywhere. These are interactive online lessons on the topics from the curriculum standards the students need to learn in math, science, English language arts, and social studies. During the pandemic, LSI made all the CPALMS resources accessible to all students, parents, and educators



**CPALMS was wonderful for us...  
Having a resource, for free, like  
CPALMS, really helped us out. If we  
use the lessons that are available  
on CPALMS we know that has been  
vetted through other teachers as  
well as other professionals.**

**-Greg Stickel, Global Outreach  
Charter Academy Principal**

around the globe to support them in teaching and learning from home. More than 20 million students depended on CPALMS during that period. Since CPALMS started offering educational resources, more than 750 million resource views/downloads have been delivered. During the last year, CPALMS delivered more than 70 million resources to just Florida's educators and students.

### **Original Student Tutorials**

The CPALMS team created more than 150 new original student tutorials and maintained 1,300 tutorials throughout the year. The development of these tutorials is a collaboration between K-12 educators, subject specialists, instructional designers, graphic designers, narrators, and others that collectively spend between 200-400 labor hours to create each one. During the last year, several tutorials crossed their millionth view.

### **CPALMS Initiative for Career and Technical Education**

CPALMS is expanding its support to include Career and Technical Education (CTE). In partnership and funding support from the Florida Department of Education, the CPALMS team is designing and migrating a complex process and a massive data set to modern, efficient, and usable tools and resources for all educators. By the

end of the project, CPALMS will have a CTE application to help the state manage all the program, course, and standards data, along with software tools and educational resources for teachers across the state. This project will lay the foundation to build support for students to explore CTE programs, college degrees, careers, and much more. At the same time, it will be creating a one-stop shop for CTE teachers across the state to access resources for teaching and learning.

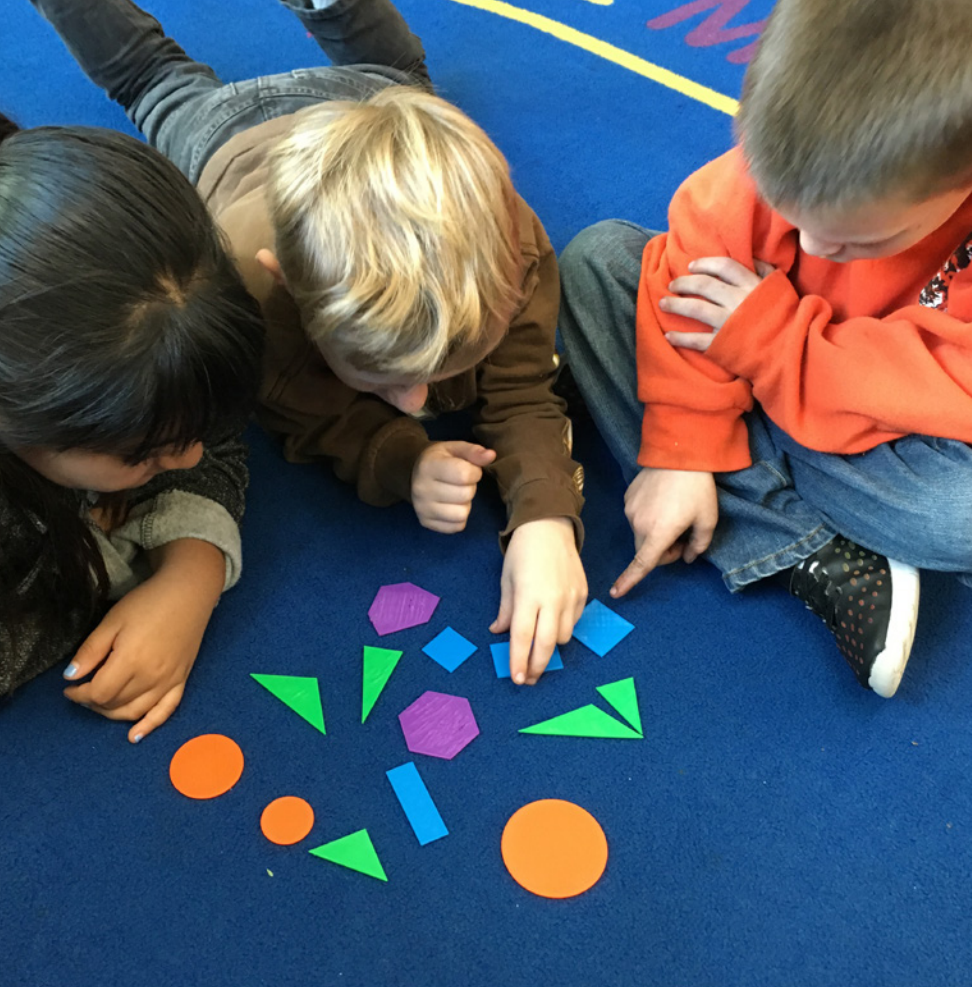
### **Civics Educational Resources**

The CPALMS team is working on multiple projects to develop educational resources for civics, including integrated resources that can be used in math, science, English language arts, and others. Hundreds of instructional resources, such as lesson plans and videos, are

being created and will be served on CPALMS for all teachers and students. The Learning Systems Institute is working with hundreds of K-12 teachers and collaborators from other Florida universities and organizations to build this vast support system for the entire state.

### **CPALMS Civics Platform**

CPALMS was chosen as the platform for the new state civics portal, which will be created to deliver all civics education instructional resources created by the state. This includes supporting the Department of Education with building a 55-hour professional development course and an online system to serve it to 20,000 Florida teachers over the next few months. LSI has exceeded all the expectations on the project and is gearing up for the course launch.



## PreK-2 Assessment Project

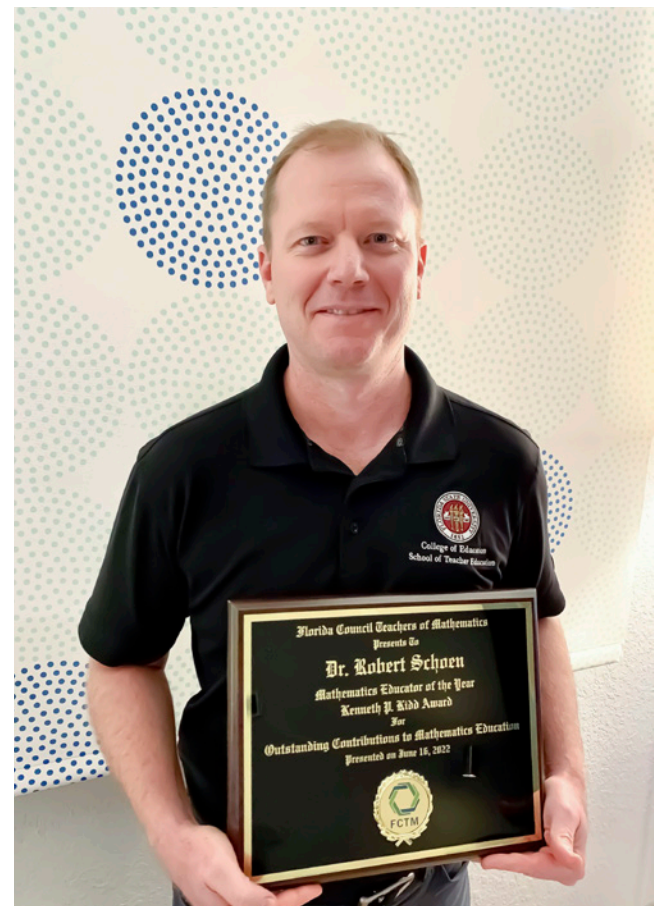
The Learning Systems Institute was selected by the Florida Department of Education to develop thousands of test items for PreK-2 mathematics and English Language Arts and to be used in the State's Coordinated Screening and Progress Monitoring System. LSI is working with over a hundred Florida teachers on the project, helping to set test item specifications and/or write assessment items. Assessment items will be used within the state testing platform so teachers can use the data to make an informed instructional decision to further their students' progress in ELA and mathematics.

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## LSI Faculty Member Receives the Mathematics Educator of the Year Award

The Florida Council of Teachers of Mathematics (FCTM) named Florida State University professor and Learning Systems Institute (LSI) faculty member Robert Schoen, Ph.D., the Kenneth P. Kidd Mathematics Educator of the Year. The award was established in 1976 to recognize an individual's outstanding contributions to mathematics education.

Schoen is the Associate Director of LSI's Florida Center for Research in STEM (FCR-STEM) and an Associate Professor in Mathematics Education at Florida State University. His research experience extends from the development of educational and psychological measurement instruments and in-depth study of student mathematical thinking to the mathematical education of teachers and rigorous evaluation of the effectiveness of educational interventions. Through his research projects, Schoen and his team have provided evidence-based professional development in mathematics and statistics for more than 2,000 Florida teachers in the past decade.





## Examining Teacher Math Anxiety in the Classroom

During the fifth, and final, year of this project, which was funded by the U.S. Institute of Education Sciences, the LSI research team worked on finalizing data entry and organizing the data examining Florida elementary school teachers' math anxiety, their instructional practices, and their students' math attitudes and learning. The LSI team presented preliminary findings from this work at conferences and worked on writing a manuscript about the final findings of the study. The team also worked to prepare data documentation in preparation for sharing the data from the project publicly so that other researchers can ask important research questions in the data as well.

## Follow Up to the Replicating the CGI Experiment in Diverse Environments Study

During the past nine years, Dr. Robert Schoen has directed four randomized controlled trials of a teacher professional development program in elementary mathematics called Cognitively Guided Instruction. More than 2,000 Florida teachers have participated in at least one year of the three-year program. In the first experimental study of CGI that looked at long-term effects on students and used the mathematics tests used in the school accountability system as the outcomes of interest, Schoen and colleagues found that the CGI program increased school mathematics achievement on the i-Ready Diagnostic and the Florida Standards Assessment, and larger effects were found in the upper elementary grade levels than the lower grade levels. This was the second randomized controlled trial that found positive and statistically significant effects on student learning at the upper elementary level. The research provides important evidence of effectiveness of the CGI teacher professional development program while simultaneously making an impact on tens of thousands of students across the state of Florida.



## AMPLIFYING THE IMPACT

- » CGI increased FSA math scores by an average of 3.4, 4.5, and 2.7 FSA scale points in grades 3, 4, and 5.
- » School CGI participation impacts intermediate grade i-Ready math scores more than primary grade i-Ready math scores.



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