

CAPABILITY STATEMENT



LEARNING SYSTEMS INSTITUTE
FLORIDA STATE UNIVERSITY

The Learning Systems Institute (LSI) at Florida State University is at the forefront of developing innovative solutions that bridge education theory and practice. Our experts' advanced research provides not only state-of-the-art methods but also a clear path for implementation. We have been providing innovative work for more than 55 years.

Our expert faculty and staff have delivered systems that measurably improve the learning and performance of organizations and individuals in Florida and worldwide. Our work has earned LSI an international reputation for efficient and effective management and technical work that meets clients' needs.

LSI is a leader in multidimensional education projects and capacity building for reforming and strengthening educational systems. LSI faculty and staff have expertise in AI in education, performance improvement, learning technologies, international development, higher education capacity building, pre-service teacher education, teacher training, instructional design and curriculum development, STEM education, education technology, policy and standard development, literacy, English as a second language, and inclusive education. LSI has extensive experience implementing educational programs in Florida, the United States, and 49 countries worldwide, with a strong record of managing multi-million-dollar research and service projects.

Since 1969, LSI awards have exceeded \$800 million, and our staff has recently done innovative, impactful work on projects with Armenia, India, Egypt, Kenya, Lebanon, Malawi, Mexico, Rwanda, South Africa, Ukraine, and Zambia. Domestically, we continue to lead STEM education and workforce development on FSU's InSPIRE project and partner with the Florida Department of Education.

LSI's International Work

LSI has worked on more than 1,000 projects and overseen dozens globally. Areas of activity include basic education (primary and secondary), higher education, vocational training, pre-service teacher training, health, urban development, education technology, teacher training, reading/literacy instruction, rural communication, girls' education, instructional design, accommodations, and modifications for students with special needs; learning disabilities libraries; STEM (science, technology, engineering, math); expert performance improvement; learning technologies; sector assessments and evaluations.

LSI has provided technical assistance to developing countries, many funded directly or indirectly by the U.S. State Department, UNICEF, and other international donors. Most of these international projects aim to improve primary, secondary, and tertiary education and support educational reforms that call for pre- and in-service teacher education, curriculum, and materials development for all these levels, including technical and vocational training for workforce development.

FCR-STEM

The Florida Center for Research in Science, Technology, Engineering, and Mathematics (FCR-STEM) was created by the Florida Legislature and competitively awarded to Florida State University in 2007. The mission of FCR-STEM is to help the State of Florida improve STEM teaching and learning in grades K-12 and prepare students for higher education and STEM careers. Through impacts on teacher knowledge and classroom practice, FCR-STEM strives to improve student achievement, narrow student achievement gaps, and increase student pursuit in STEM fields.

Through research conducted at FCR-STEM, our staff works to answer the question, "How can we improve STEM integration and teaching and learning for all students?" Our staff advocates for a scientific approach to educational research and supports the use of open science and experimental design in our work. The work includes reports of the impact of educational interventions on student learning in mathematics and statistics through various teacher learning programs involving formative assessment, Cognitively Guided Instruction, lesson study, and statistics curriculum and professional learning opportunities.

OUR EXPERTISE

For more than 55 years, LSI has been innovating and expanding its expertise. We are a multidisciplinary research and development organization dedicated to innovating learning to improve human performance. LSI's project-based teams feature top researchers from multiple departments at FSU and leading institutions globally. The team of researchers housed at LSI constitutes the institute's core faculty. Faculty members from across the university are frequent contributors to the institute. LSI's faculty members have expertise in research design and methodology across a range of approaches and techniques.

AI in Education

Artificial intelligence is transforming education by creating new opportunities to personalize learning, strengthen teaching, improve organizational effectiveness, and prepare learners for an AI-enabled future. LSI partners with schools, universities, governments, and industry to research, develop, implement, and evaluate AI solutions that improve educational outcomes while promoting responsible and human-centered use of artificial intelligence. What distinguishes LSI is our ability to combine educational research, AI software development, instructional design, open educational resources, professional learning, and large-scale implementation into integrated solutions. From developing AI-powered technologies to preparing educators and institutions for responsible AI adoption, LSI helps partners move beyond experimentation to meaningful, evidence-based impact.

Professional Learning

LSI has equipped tens of thousands of educators and industry professionals for success on the job by developing and delivering capacity-building workshops where participants enhance their content knowledge, improve their skills, and apply new learning in the real world.

Instructional Design & Curriculum Development

LSI supports millions of students, educators, and professionals by developing teaching and learning resources based on the expertise of subject area experts. Award-winning educators and the latest research in learning and cognition, instructional design, and teaching methods.

Research, Monitoring, and Evaluation

LSI faculty are experts in a wide range of research methodologies and evaluation approaches, from large-scale randomized controlled trials to qualitative case studies. We have experience conducting research, monitoring, and evaluation worldwide, including in conflict and crisis settings.

Higher Education Capacity Building

LSI has engaged in higher education capacity building for more than 50 years. We take a collaborative, peer-to-

peer approach to develop the skills of higher education faculty in various areas, including instruction, research, and administration.

Literacy

LSI faculty have deep expertise in promoting literacy in contexts around the world. Current and past projects have involved literacy materials development, teacher training, coaching, and literacy assessment development. Using evidence-based approaches, LSI faculty develop contextually-appropriate approaches in improving literacy outcomes.

Special Education

LSI faculty are experts in creating customized services and supports to ensure all students with disabilities have the same educational, social, and future opportunities as their peers. We have more than 30 years of experience network, which specializes in sharing the best practices for students with disabilities in the least restrictive environment

Education Technology

For more than 40 years, LSI has been at the forefront of advancements in educational technology. Our faculty and staff have built applications and solutions used by millions of educators and students. Some of those innovations include CPALMS, the MySTEMKits curriculum with 3D printable manipulatives, CMAP for curriculum planning, and numerous apps and platforms. LSI creates applications that enhance teaching and learning.

STEM Education

LSI houses The Florida Center for Research in Science, Technology, Engineering and Mathematics (FCR-STEM), a multidisciplinary research center created by the Florida Legislature. The FCR-STEM's mission is to help the State of Florida improve STEM teaching and learning and prepare students for higher education and STEM careers. These broad goals are addressed primarily through high-quality research, teacher professional development, and the development of innovative resources and tools to support instruction aligned with curriculum standards.

Policy and Standards

In the U.S. and in countries around the world, LSI advises policymakers on setting standards, developing benchmarks, and setting education sector policies related to teachers and student outcomes.

English as a Foreign Language

In collaboration with FSU's Center for Intensive English Studies—an institution with over four decades of expertise in English language instruction—LSI designs state-of-the-art curricula for teachers and educators that are supported by clear paths for implementation. Our extensive experience and demonstrated impact in advancing global literacy have established LSI as a recognized leader in the field.

LSI PROJECTS

LSI has recently worked on international projects with education professionals from Armenia, India, Egypt, Kenya, Lebanon, Malawi, Mexico, Rwanda, South Africa, Ukraine, and Zambia. In 2025, we worked on projects with 13 countries. The work being conducted by the LSI faculty and staff in the United States and around the world will allow educators all over the globe to impact millions of students.



Transforming Teacher Education - Zambia

LSI led a five-year, \$15 million project sponsored by the U.S. Agency for International Development to improve pre-service teacher training in Zambia. LSI faculty, in collaboration with partners School-to-School International and the University of Zambia, worked with 12 universities and colleges of education in the country to improve the training of primary grade teachers. Over the five-year period, the “USAID Transforming Teacher

Education Program” would give more than 60 Zambian teacher educators the skills to deliver effective instruction to 9,000 college and university students studying to become primary grade teachers.

Tunozu Gusoma Schools and Systems - Rwanda

In conjunction with FHI 360 and its partners, LSI worked to ensure that literacy instruction of Kinyarwanda (an official language in Rwanda) in pre-primary and lower primary schools was high quality, inclusive, and effective. LSI helped to roll out a previously developed module on teaching literacy skills in the Kinyarwanda language that was delivered to instructors from Teacher Training Colleges across Rwanda. The LSI team also completed a Baseline Situation Assessment and a Rapid Situation Assessment presenting the findings to 50 national stakeholders. Finally, the LSI team worked closely with the Rwanda Education Board to establish a Teach-



ing Practice Advisory Group. This group will review and refine the Teaching Practice Framework.

Strengthening Teacher Education and Practice - Malawi

LSI led a \$15.6 million project sponsored by the U.S. Agency for International Development to improve teacher training in Malawi. The Strengthening Teacher Education and Practice (STEP) Activity aimed to improve the higher education system that trains primary school teachers in the country as well as the professional development practices that support teachers through their careers. LSI faculty worked with 16 teacher training colleges across the country to improve teacher education programs and develop new training materials related to literacy and numeracy education. The STEP

project was a landmark investment to support the institutions of higher education that provide preservice teacher education.





The Zambia Pre-service Teacher Education Study (Gates Foundation)

This study evaluated the United States Agency for International Development's Transforming Teacher Education (TTE) in Zambia Activity. Implemented by the Learning Systems Institute, and led by Dr. Stephanie Simmons Zuilkowski, with support from partners School-to-School International and the University of Zambia, TTE aimed to strengthen the capacity of Zambia's pre-service teacher training institutions to improve student learning outcomes in early grade reading in-

struction. This outcome evaluation of the TTE activity compared student teachers who attended TTE colleges with student teachers who attended comparison group colleges on their literacy content knowledge, general pedagogy and classroom management, and literacy-specific pedagogy, using data from observations, student teacher assessments, and semi-structured interviews to address these questions.

The study found strong positive associations between attending a TTE college and student teacher performance on both the general pedagogy and literacy-specific subscales of the observation tool. Cohen's *d*, a measure of effect size, was calculated at .97 for general pedagogy and .86 for literacy-specific pedagogy. The pattern of results was similar when examined within each province, with TTE colleges' student teachers outperforming the comparison group colleges' teachers. The team also identified statistically significant, negative associations between class size and both pedagogy subscales. In a country where class sizes range up to 90, this is an important contextual factor for consideration in pre-service teacher education.

Educators Shaping Futures

In 2025, LSI partnered with the World Bank and UNESCO to host Educators Shaping Futures: A Global Knowledge Exchange on Teacher Preparation and Development. The event, which took place Nov. 3-4 at the United Nations Economic Commission for Africa Conference Center in Addis Ababa, Ethiopia, aimed to address the worldwide shortage of qualified teachers. More than 340 policymakers, teacher educators, researchers and practitioners from 41 countries convened to raise awareness and build coalitions for change to ensure that teachers everywhere are prepared and supported to succeed in their crucial roles.

Dr. Stephanie Zuilkowski, associate director for Research at LSI and professor of International and Multicultural Education in the Anne Spencer Daves College



of Education, Health, and Human Sciences, led LSI's planning alongside Bhushan Dahal. Together they co-alesced a diverse group of stakeholders including education policymakers and government officials in combination with academic leaders, teacher unions, school and district-level administrators, researchers, NGOs, the private sector, initial teacher education professionals and, most importantly, teachers.

AI Educational Tools

Our AI-powered Open Educational Resource Customization Tool enables teachers to adapt vetted instructional resources to meet the diverse needs of their students while maintaining alignment with academic standards. Teachers can adjust reading complexity, differentiate instruction, and generate classroom activities and assessments, allowing them to personalize learning without

creating instructional materials from scratch. By combining the efficiency of generative AI with the quality and reliability of evidence-based instructional resources, this approach supports personalized learning at scale.

What distinguishes LSI is our ability to combine educational research, AI software development, instructional design, open educational resources, professional learning, and large-scale implementation into integrated solutions.

Visiting Scholar Participation Program

Florida State University welcomed scholars from India's top research institutions to Tallahassee through a new initiative designed to spark international collaboration, accelerate innovation and expand FSU's global research partnerships.

The inaugural Visiting Scholars Partnership Program (VSPP) was designed to strengthen high-impact, research-and innovation-centered partnerships with leading universities around the world. The pilot program took place July 5-31 and brought scholars from four highly-ranked international institutions to FSU's Tallahassee campus for exploratory research collaborations.

Each visiting scholar was paired with FSU faculty aligned with their expertise and desire to build international partnerships. Visiting scholars explored FSU's world-class facilities, met administrators across multiple departments, and engaged in one-on-one collaboration with their faculty peers several times each week.

Housed in the Office of the Provost, the initiative received strategic oversight from the Office for Strategic Initiatives and Innovation and is implemented by the Learning Systems Institute and led by program director Dr. Vilma Fuentes (LSI).

STEM and Social Entrepreneurship in Armenia

From July 2025 to June 2026, LSI continued to work with partners at the Jim Moran College of Entrepreneurship (JMC) and the Armenian State University of Economics (ASUE) to implement a project called, "Promoting STEM and Social Entrepreneurship through American and Armenian Higher Education Collaboration."

Dr. Vilma Fuentes, the project co-director, travelled to Yerevan to train ASUE faculty on Collaborative Online International Learning (COIL), a high impact teaching methodology that promotes internationalization, intercultural communication, technology, and critical thinking skills. Dr. Susana Santos, the project director, and Dr. Eric Ligouri, the Associate Dean of Entrepreneurship, also participated in this travel and led an intensive faculty workshop on entrepreneurship education.

Upon returning from Armenia, a course titled, "Entrepreneurial Solutions to Societal Changes" on two learning management systems: Moodle and Canvas



The initiative was spearheaded by Farrukh Alvi, senior associate provost for Strategic Initiatives and Innovation and the Don Fuqua Eminent Scholar and Professor of Mechanical and Aerospace Engineering at the FAMU–FSU College of Engineering.

The VSPP provided a structured, immersive experience that supported collaborative research, innovation exchange and the development of long-term institutional partnerships. Collaborations span fields including aerospace engineering, biomedical engineering, quantum optics, entrepreneurship and advanced materials research.

was developed. The course included a 10-week COIL project that used design thinking to develop social entrepreneurship skills. The 10-week COIL project was implemented in the Fall 2025 and Spring 2026. A total of 96 students from ASUE and FSU participated in this exchange. Participants worked in binational groups, completed weekly tasks, developed entrepreneurial solutions to a societal problems, and pitched their ideas through a team video.





CPALMS is a unique platform developed by LSI to support K-12 education in Florida and used by millions from all around the globe. More than 260,000 K-12 Florida educators and approximately 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. CPALMS is the State of Florida's official source for standards information and course descriptions. It provides access to thousands of standards-aligned, high-quality instructional and educational resources designed specifically to support standards-based instruction. Over the years, CPALMS has become a platform of tools and continues to grow 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 is a unique platform developed by LSI to support K-12 education in Florida. More than 300,000 K-12 Florida educators and approximately three million Florida students actively use CPALMS to access educational resources, information to support their teaching and learning, and software applications to assist them throughout their academic journey.

Since its inception, more than a billion resource views/downloads and 70 million resources have been delivered to Florida's educators and students. CPALMS is the State of Florida's official source for standards information and course descriptions. It provides access to thousands of standards-aligned, high-quality instructional and educational resources.

CPALMS offers more than 14,000 high-quality educational resources developed by FSU faculty and K-12 educators, and is home to over 500 Perspectives Videos, which are standards-aligned short video resources highlighting experiences and ideas from experts, teachers, professionals, and skilled enthusiasts. CPALMS features unique resources, including over 500 Model Eliciting Activities (MEAs), that enable students to apply their knowledge in real-life applications where problem-solving and critical thinking take the lead.

The website also features over 1,500 original student tutorials, that allow students to explore content in math, science, English language arts, computer science, and social studies. The development of these tutorials is a collaborative effort between K-12 educators, subject specialists, instructional designers, graphic designers, and narrators who collectively spend 200-400 labor hours to create each tutorial.

1B

**MORE THAN ONE
BILLION RESOURCE
DOWNLOADS/VIEWS
ON CPALMS.ORG**

40K

**DESIGNED AND DELIVERED
INTENSIVE PROFESSIONAL
DEVELOPMENT FOR OVER
40,000 TEACHERS**

3M

**APPROXIMATELY
3,000,000 FLORIDA
STUDENTS ACTIVELY
USE CPALMS**

300K

**OVER 300,000
FLORIDA EDUCATORS
HAVE AN ACTIVE
CPALMS ACCOUNT**

FSU *InSPIRE*

The InSPIRE initiative continued to expand its reach and impact across Northwest Florida this year by supporting teachers, strengthening school and district partnerships, and creating meaningful connections between education, industry, and emerging technologies. Through professional learning, field experiences, guest expert sessions, STEM events, industry engagement, and regional collaboration, InSPIRE is helping educators prepare students for future-ready careers in artificial intelligence, robotics, advanced manufacturing, computational thinking, and related STEM fields.

A major focus of this year's work was building teacher capacity through high-quality courses and professional learning experiences that combine strong pedagogy with real-world application. InSPIRE's courses are designed not only to introduce educators to new technologies, but also to help them translate those technologies into meaningful classroom instruction. Participants explored instructional strategies, completed field-based learning experiences, connected with guest experts, and developed classroom-ready ideas that can be adapted across grade levels and subject areas.

Since its inception in 2024, InSPIRE has trained more than 350 teachers across eight counties and supported more than 650 industry certifications.

WORKING WITH LSI

At LSI, our mission is to improve learning and human performance globally, utilizing innovative approaches and implementation techniques. LSI is at the forefront of developing solutions that bridge theory and practice in education. Our experts' advanced research provides state-of-the-art methods and a clear path for implementation. For more than 55 years and in 49 countries, LSI has delivered systems that measurably improve the learning and performance of organizations and individuals in Florida and worldwide.

LSI is dedicated to researching and developing instructional and non-instructional interventions to improve performance. Our efforts focus on how individuals and organizations perform complex tasks and how we can help them achieve their performance goals. Our analytical approach is systemic, and our solutions are interdisciplinary, incorporating cognitive and educational psychology as well as instructional and information technology. Our ability to reach any faculty member or department at Florida State University and year-round availability allow our LSI faculty and staff to provide unmatched resources and results.

At LSI, you have one point of contact that can reach any department or faculty member on FSU's campus including:



We have expertise managing both prime and sub awards of all sizes.

ACTIVITY IMPLEMENTATION

EVALUATIONS

MATERIALS
DEVELOPMENT

TEACHER TRAINING



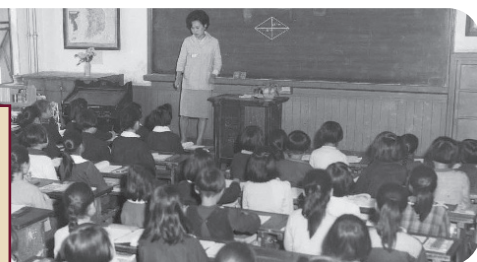
AVAILABLE YEAR-ROUND

LSI at Florida State University offers unmatched access and availability to our faculty.

For five decades, LSI has been trusted by the U.S. Government, the State of Florida, and global partners to continually deliver measurable results.

1969: KOREAN EDUCATIONAL SYSTEM REFORM

The reform efforts helped reshape Korea's education system during the 1970s. LSI contributed to modernization efforts that later produced measurable improvements in student achievement and system performance.



1989: FLORIDA 'SCHOOL YEAR 2000' INITIATIVE

A major system evaluation of Florida public education was conducted, and large-scale system design principles emerged that led to a major educational restructuring effort aimed at shifting from a teaching-centered to a learning-centered model.



2005: DHS PORT SECURITY

LSI created a uniform, comprehensive set of courses for port employees to more effectively prevent, deter, and respond to terrorist acts at the nation's busy seaports. The PortStar system launched in 2010 with 530 lessons in eight separate courses.



2024: GATES FOUNDATION PRE-SERVICE TEACHER

LSI received its first-ever grant from the Gates Foundation to examine the knowledge and pedagogy of student teachers who have completed their pre-service teacher training in public colleges of education in Zambia.



2025: EDUCATORS SHAPING FUTURES

LSI partnered with the World Bank Group, UNESCO, and the Ministry of Education to host Educators Shaping Futures in Ethiopia. More than 340 policymakers, teacher educators, researchers and practitioners from 41 countries attended.



LEARNING SYSTEMS INSTITUTE
AT FLORIDA STATE UNIVERSITY

lsi.fsu.edu