

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 theory and practice in education. 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 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, 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 the institute worked on 34 projects in the fiscal year 2023-24 including work in Egypt, Malawi, the Philippines, Rwanda, Uzbekistan, and Zambia. LSI currently employs more than two hundred faculty personnel, researchers, and support staff serving a variety of international clients.

**EXPERIENCE WORKING
WITH 49 COUNTRIES**



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.

Teacher Training/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.

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.

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.

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 educators supported by clear paths for implementation. Our extensive experience and demonstrated impact in advancing global literacy established LSI as a leader in the field.

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.

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.



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 2006. It is another highly respected center operated by LSI faculty and staff.

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 in the 21st century. 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.

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.

Among FCR-STEM's significant accomplishments are the impacts of professional development on teacher and student outcomes, the design and delivery of intensive professional development for over 40,000 teachers in Florida, and the development of CPALMS.

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 pushes 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.

CPALMS

INNOVATING LEARNING



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.

CPALMS Impact

CPALMS now offers more than 13,000 high-quality educational resources developed by FSU faculty and K-12 educators. During the pandemic, LSI made all the CPALMS resources accessible to students, parents, and educators 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 one billion resource views/downloads have been delivered. During the last year, CPALMS had more than 70 million resources delivered to Florida's educators and students. A unique type of resource, CPALMS includes 500+ Perspectives Videos which are standards-aligned short (~5-min.) video resources highlighting experiences and ideas from experts, teachers, professionals, and skilled enthusiasts. The CPALMS video production team ensures videos are ready for teachers and students to understand technical content, learn new approaches to teaching, and highlight the appearance of STEM concepts in practical, real-world situations.

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**

LSI plays a vital role in FSU's InSPIRE initiative, leading the workforce development component and STEM outreach in K-20 education with the goal of training teachers and providing industry certifications to participants. LSI's innovative approach to professional learning and workforce development aims to transform education and build a prepared workforce across the

panhandle of Florida. LSI's programs engage educators in cutting-edge fields like aerospace engineering and advanced manufacturing while creating an AI-empowered and ready workforce. Additionally, through InSPIRE, LSI is committed to providing exceptional and unparalleled opportunities for military families, including comprehensive after-school and summer programs designed to enrich and enhance students' educational experiences while simultaneously providing military members and spouses with comprehensive workforce training opportunities.

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.