**U.S. Department of Education**

**Office of Postsecondary Education**

**International and Foreign Language Education Office**



**Title VI International Research and Studies Program**

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**Grant Award List and Project Abstracts**

**Fiscal Year 2023; Project Period 2023-2025**

**International Research and Studies Program**
 **FY 2023 Grant Awards List**

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| P017A230023 | CUNY Graduate Center | NY | Language Placement for Equitable Learning (LaPEL) | $66,864 | 6 |
| P017A230021 | Georgetown University | DC | Understanding Outcomes for Foreign Language and Area Studies (FLAS) Fellowship Programs | $101,763 | 7 |
| P017A230040 | Georgetown University | DC | Measuring Bilingual Performance and Achievement in Non-Roman LCTL Dual Language Programs | $91,324 | 8 |
| P017A230015 | Michigan State University | MI | Technology Facilitated Chinese Language Teaching (TFCLT) | $61,262 | 9 |
| P017A230049 | Modern Language Association | NY | Understanding Changing Language Enrollments in the United States: An MLA Research Study | $89,228 | 10 |
| P017A230027 | Pennsylvania State University – University Park | PA | Investigating Teachers’ Use of Technologies in Foreign Language Programs: A Mixed-Methods Study of Attitudes and Practices | $102,000 | 11 |
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| P017A230050 | Florida International University | FL | An HSI and HBCU collaboration to create open access curricula celebrating Blackness in Latin America | $63,378 | 21 |
| P017A230032 | Language Mentors International, LLC | CA | Levantine Arabic Textbooks for Novice/ILR 0+ - Advanced/ILR 2 Adult Learners | $58,410 | 22 |
| P017A230033 | Language Mentors International, LLC | CA | Developing Iraqi Arabic Textbooks for Novice/ILR 0+-Advanced/ILR 2 Adult Learners | $58,410 | 23 |
| P017A230047 | Lwin, Chan | CA | Intermediate Burmese eTextbook | $44,055 | 24 |
| P017A230036 | Michigan State University | MI | OER Collaborative: Enhancing Language Teaching through Open Education Resource (OER) Language Textbook Development and Partnerships | $59,938 | 25 |
| P017A230018 | Pennsylvania State University – University Park | PA | Improving Instruction in International Agriculture | $55,719 | 26 |
| P017A230037 | Rochester Institute of Technology | NY | “Language for STEAM”: Developing Language Instructional Materials for Science, Technology, and Arts | $59,953 | 27 |
| P017A230043 | University of California – Berkeley | CA | Translating Machine Translation for Language Education to Promote Language Learning, Critical Digital Literacies, and Global Citizenship | $56,530 | 28 |
| P017A230044 | University of Texas – Austin | TX | Developing an Open Educational Resource Web-based Textbook for First- and Second-Year Russian | $59,974 | 30 |

# Research, Studies, or Surveys

## Center for Applied Linguistics

P017A230008

*Strengthening K-16 Language Program Articulation to Expand National Foreign Language Capacity*

This proposal outlines a Title VI International Research and Studies Research Project to be conducted by the Center for Applied Linguistics (CAL). CAL will conduct a three-year research study to identify program models and practices that strengthen K-16 language program articulation and provide guidance about best practices to build foreign language program articulation from K-12 to higher education, meeting a need identified by language educators and researchers for analysis of programs that provide language learners with pathways to progress in acquiring advanced linguistic and cultural proficiency through postsecondary study. Through working in partnership with community colleges, this project will address the Competitive Preference Priority of Promoting Equity in Student Access to Educational Resources and Opportunities.

Students need advanced proficiency in at least one language other than English to work in cross-cultural settings and succeed in today’s globally competent workforce. Effective articulation, which entails sequenced instruction that considers students’ needs and motivations and allows them to build upon their prior language study in K-12 and community college, will sustain and help grow postsecondary language programs facing budget constraints and declining enrollments, expand access to foreign language learning for all students, including those who are traditionally underserved, and allow learners to develop high levels of language proficiency. By collecting data on current research, policies, practices, and stakeholder perspectives related to K-16 foreign language program articulation and crediting prior language study and disseminating research findings and recommendations on effective models to strengthen K-16 articulation, this project will provide support for local institutions as well as research about the present and future needs of the United States for achieving competency in foreign languages.

The proposed study investigates four research questions:

1. What is the landscape of K-16 foreign language program articulation in the United States?
2. How do higher education practices for crediting previous foreign language study, including the Seal of Biliteracy, support K-16 foreign language program articulation, and where is more support needed?
3. What are postsecondary students’ perspectives on transitions from high school to college foreign language study?
4. What do case studies of program models and practices indicate about effective foreign language program articulation from K-12 to higher education, including to and from community colleges?

The study will first examine the national landscape of K-16 foreign language articulation through a literature review and analysis of online information from states and educational institutions. Next, practices for crediting foreign language study in higher education will be examined for how they support or discourage K-16 articulation via large-scale surveys of stakeholders in both high school and higher education settings followed by interviews with 10 educators and administrators highly involved in K-16 language program articulation activities. The critical perspectives of postsecondary students, including those enrolled in community colleges, on support and barriers to their continued foreign language study will be investigated via a large-scale survey and follow-up interviews with 20 students. Finally, case studies of five institutions of higher education that have articulated language programs with community colleges and high schools will investigate which program models and specific practices lead to effective foreign language program articulation.

## CUNY Graduate Center

P017A230023

*Language Placement for Equitable Learning*

The Institute for Language Education in Transcultural Context (ILETC) at the Graduate Center (GC-CUNY) and the Modern Languages and Literatures Department at the John Jay College of Criminal Justice (JJ-CUNY) request funds to conduct the Language Placement for Equitable Learning (LaPEL) project, a research study that aims to improve and strengthen instruction in modern heritage languages by investigating sustainable, proficiency-based placement methods for postsecondary heritage language learners (HLL). The LaPEL project will be conducted in partnership with a Minority Serving Institution (MSI), JJ-CUNY, and instructors from a community college (CC) will participate in it as language specialists, addressing the DOE International Research and Studies program (IRS) Competitive Preference Priority “Promoting Equity in Student Access to Educational Resources and Opportunities.”

The challenge. This study is motivated by a need that has been identified by ILETC's research, which has shown that students in heritage-designated language courses at MSIs and CCs exhibit a wide range of proficiency levels despite the use of departmental or commercially available placement tests, because such tests do not assess proficiency. The heterogeneity of learners in a course poses a significant challenge for instructors and learners alike: Instructors are unable to establish common instructional goals; learners are precluded from fully developing their potential. Commercially-available tools that do capture proficiency exist, but they are prohibitively expensive for many MSIs and CCs with limited financial resources. The LaPEL project aims to tackle this challenge by researching two low-cost, proficiency-based methods for placing HLLs.

The study. The LaPEL project will investigate the efficacy of two placement tools: (1) the use of LexTALE, **(Lexical Test for Advanced Learners of English-Español)** an easy to administer, low-cost test of vocabulary knowledge which has proven useful for other languages and contexts, as a proxy for heritage language proficiency; and (2) the use of ChatGPT to assign a proficiency rating to writing samples, a use of artificial intelligence (AI) that has not yet been formally researched. We will conduct the study on two different tools to ultimately provide options for educational contexts with varied needs and resources.

Deliverables and usefulness. The project will provide new knowledge on the relationship between vocabulary knowledge and language proficiency in HLLs; new knowledge on the applicability of AI tools for HLL language proficiency assessment; and research-based placement protocols using two possible methods. These deliverables have the potential to widely improve the teaching and learning of heritage Korean, Mandarin, and Spanish. Additionally, the LaPEL project will provide a roadmap for investigation of applicability to other heritage languages, to L2 language education, and in heritage linguistics research.

By investigating the ability of these low-cost tools to place learners based on their proficiency, the LaPEL project seeks to orient researchers and practitioners toward solving the highly inaccurate course placement of HLLs—a historically underserved population. This is an urgent, long-overdue task to change what currently precludes minority students from taking full advantage of their academic experience. The study we propose has the ultimate goal of making learning more equitable for minority students.

## Georgetown University

P017A230021

*Understanding Outcomes for Foreign Language and Area Studies (FLAS) Fellowship Programs*

Georgetown University’s Department of Linguistics proposes a three-year study to research language assessment and program outcomes in Foreign Language and Area Studies (FLAS) Fellowship programs. FLAS Fellowship programs represent a major effort from the U.S. Department of Education to develop national language capacity and increase the number of advanced language speakers. With an appropriation of over 31 million dollars annually funding 112 different programs, these programs require a significant investment of time and resources. Ensuring that these programs have appropriate and valid tools for assessing and reporting student outcomes, as well as informing future instruction is essential to: (a) Demonstrate the value of FLAS fellowships, and (b) Measure the impact of FLAS programs relative to the stated goal of increasing the number of highly proficient language users.

All funded FLAS programs currently have only one required proficiency assessment that is used consistently across programs. This is the International and Foreign Language Education (IFLE) Language Assessment Tool. This checklist-based tool is typically administered by a student’s language instructor, and is used to determine a students’ speaking proficiency levels based on can-do statements. The IFLE Assessment Tool is used across the very wide range of institutions, program types, and languages in FLAS to report growth in language proficiency outcomes.

The proposed study investigates assessment practices in FLAS programs, focusing on the IFLE Assessment Tool in particular. Specifically, we will investigate whether the tool is: (a) used effectively in the field by practitioners, (b) supported by validation research, (c) represents the sort of high-quality measure needed to evaluate pre- and post-program gain in FLAS programs. Given the significant investment by the FLAS programs in their learners, this sort of efficacy research is seriously needed.

The research design includes surveys of FLAS programs (N = 112) and fellowship recipients (n = 250) followed up by in-depth interviews with each group, and retrospective interviews on implementation (n = 40) with IFLE Assessment Tool users. Finally, in three FLAS programs, we will correlate pre- and post-program results from the IFLE Assessment Tool with ACTFL OPI and student self-assessment scores to understand the efficacy of the tool for assessing language gains. The mixed-methods study will result in rich and comprehensive data about FLAS assessment practices and the IFLE Assessment Tool as well as practical resources for FLAS Fellowship programs, including research-based supports designed to encourage the reliable and effective assessment practices. The activities and outcomes across the three years of the research project will contribute meaningful and practical data and resources to FLAS programs and their stakeholders, and will support the goal of expanding national language capacity in the U.S.

## Georgetown University

P017A230040

*Measuring Bilingual Performance and Achievement in Non-Roman LCTL Dual Language Programs*

Georgetown’s Initiative for Multilingual Studies (IMS) proposes to conduct a three-year research study (FY 2023-2025) to investigate how written and oral proficiency in Urdu and English relate to academic achievement in dual language immersion (DLI) contexts. This study addresses the Absolute Priority 1(ii): research and studies on more effective methods of instruction and achieving competency in modern foreign languages, area studies, or to evaluate competency in those foreign languages, area studies, or other international fields. The study aims to fill the knowledge gap on DLI outcomes when the partner language is a less commonly taught language (LCTL) which also differs significantly from English in terms of non-roman script, right-to-left text directionality, phonology, and difficulty.

Research on child language acquisition only covers a small fraction, approximately 1-2%, of the world's languages (Lieven & Stoll, 2013) leading to a shortage of testing theories for many languages. As a result, less commonly taught languages (LCTLs) frequently lack standardized and validated norm-referenced language assessment units in foreign language contexts (Kan, Chan & Gagarina, 2020). Despite foreign language programs’ increasing emphasis on communicative competence and oral proficiencies, little is known about the curriculum development, cultural proficiency, and literacy skills in LCTLs (Malone, Peyton & Kim, 2014; Swanson et al., 2022). Furthermore, when it comes to literacy in LCTLs, the challenge is even greater, as there are no readily available proficiency standards for writing (Davidson et al., 2019). IMS intends to bring attention to the educational needs of under-funded and under-researched LCTLs in the U.S. The research project will help determine if, how, and to what extent the oral and written language and academic expectations for LCTL dual language immersion (DLI) programs should differ from the expectations set for more commonly taught languages like Spanish, which share many similarities with English.

IMS has partnered with a Title I public school that hosts the first and only Urdu-English DLI program in the nation. We will assess various outcomes for students in both languages, from kindergarten through Grade 5. As part of the project, language learning proficiencies in the LCTL will be benchmarked, and tests will be developed to evaluate oral and literacy skills in both Urdu and English at each grade level. The language outcomes will also be mapped to student scores in mathematics, science, and social studies at each grade level. Additionally, a reasoning test will be administered to Grade 5 students who are nearing the completion of their elementary education to assess how they utilize linguistic resources from both languages when performing higher-level cognitive tasks. The research will contribute a systematic understanding of the protocols, measures, and appropriate learning expectations that can support the creation of accountable and successful bilingual education in dual language immersion programs for Urdu and other South Asian languages of interest to the U.S. government, including Bengali, Burmese, Hindi, Nepali, Pashto, Persian, and Sinhala.

The project's final products will include standardized Urdu proficiency indicators at elementary grade level, a manual co-written with the schoolteachers and an assessment system that provides useful protocols for implementing non-roman LCTLs in DLI programs, particularly for South Asian languages, speakers of which form a large yet underserved immigrant communities in the nation. These products will be made available freely via IMS webpage for schools and the research community.

## Michigan State University

P017A230015

*Technology Facilitated Chinese Language Teaching (TFCLT)*

Technology Facilitated Chinese Language Teaching (TFCLT) project aims at exploring the current field of Chinese language teaching facilitated by various technology tools in the U.S. post-secondary education context. Using a mixed-method design, the research team will develop and conduct a national survey to collect data from U.S. post-secondary institutions including community colleges where Chinese language courses are offered. Moreover, in depth follow-up interviews will be conducted with selected program administrators and faculty members from representative samples of post-secondary institutions to gain more insights about how technology tools are used in different Chinese language programs and courses. More specifically, the study will explore the types of Chinese language courses offered, enrollment numbers and trends, and various technology tools that are adopted in post-secondary institutions in the U.S. This two-year research project (FY 2023 and FY 2024) will contribute to the field of teaching Chinese as a foreign language in many aspects, including: 1) understand the current field of Chinese language teaching in post-secondary context; 2) explore the status of Chinese language teaching in community colleges; 3) identify affordances and challenges of technology facilitated Chinese language teaching in post-secondary settings; and 4) identify effective approaches to improve technology facilitated Chinese language instructions.

This project fulfills the IRS program purposes as it is an empirical research study with a mixed-method design to improve and strengthen current field of teaching Chinese as a foreign language in post-secondary context. Specifically, this project emphasizes the Absolute Priority in the following areas: 1) the national survey results and qualitative interview data collected will help determine the need for improved instructions in teaching Chinese with technology, 2) study results will provide full understanding of what, where, and how Chinese language is taught, including enrollment numbers, current trends in post-secondary institutions where Chinese are offered; and 3) the focus on the integration of technology in Chinese language teaching will inform teaching and learning Chinese language in practical and theoretical ways. This project will be implemented in collaboration with the Midwest Institute for International-Intercultural Education (MIIIE), a self-funded consortium of two-year colleges, which addresses the Competitive Preference Priority of this grant.

## Modern Language Association

P017A230049

*Understanding Changing Language Enrollments in the United States: An MLA Research Study*

The Modern Language Association (MLA) requests $300,000 over three years to support an advanced research study exploring the status of enrollments in languages other than English (LOTE) in institutions of higher education in the United States. This project builds on and extends the MLA longitudinal enrollment census that began in 1958 and has continued with support from the Department of Education, the Mellon Foundation, and the National Endowment for the Humanities. MLA enrollment data are broadly acknowledged to be the standard measure of language interest in higher education. In this next phase for which we request funding, we propose to 1) contextualize the 2021 census findings with a survey of institutional language requirements and 2) prepare, conduct, and analyze the findings of the 2024 census. Our analysis will allow us to address a critical question: Under what conditions has the study of languages in higher education improved or declined? Data collected through this program will allow us to understand how current national language needs are being met by institutions of higher education, as well as inform broader understanding of what impact programs such as dual enrollment, Advanced Placement, and the Seal of Biliteracy have on higher education enrollments.

The work of the MLA survey and census, the only longitudinal study of language enrollment trends in the country, falls under the Absolute Priority category for Research, Studies, or Surveyed Projects, which includes projects that “determine needs for increased or improved instruction in modern foreign languages, area studies, or other international fields.” Our census reports the number of students enrolled in language courses at the undergraduate and graduate levels through detailed responses from AA-, BA-, MA-, and PhD-granting colleges and universities, including historically Black colleges and universities (HBCUs), minority-serving institutions (MSIs), tribal colleges and universities, seminaries, and yeshivas. The project has a successful track record of data collection, with response rates consistently exceeding 96% across more than 2,600 postsecondary institutions.

Starting with 433,639 enrollments in 1958, the census has tracked three enrollment peaks over more than six decades, with the most recent peak at 1,673,566 enrollments in 2009. The 2021 census—covering fifteen commonly taught languages and 311 less commonly taught languages (LCTLs)—reported 1,182,562 enrollments, showing an overall decline of 16.6% since 2016 and 29.3% since 2009. Despite recent overall declines, the census identifies subtle changes in language instruction; half the commonly taught languages—and many LCTLs—show individual growth when 2021 enrollments are compared with 1998 enrollments, indicating a changing and flourishing landscape.

Understanding the conditions governing language instruction is one of the aims of the proposed study. Through a careful survey of university requirements for undergraduate student curricula, the MLA will align information about language requirements with 2021 census data to illuminate the potential impact general education and other credit hour requirements have on the health of language study across the country. In addition to analyzing the requirements survey data, the MLA will begin data collection for the 2024 enrollment census, followed by data cleaning, analysis, database testing, outside assessment and testing, development of presentations, and the writing of the report, to be published in summer 2026. As we have done with each previous census, at the conclusion of the 2024 census, we will broadly promote and disseminate our findings, report, and data online and at conferences. MLA enrollment censuses are also the standard resource for teachers, program and school administrators, researchers, and educational publishers.

## Pennsylvania State University – University Park

P017A230027

*Investigating Teachers’ Use of Technologies in Foreign Language Programs: A Mixed-Methods Study of Attitudes and Practices*

Despite the rapid development and widespread use of technologies in daily life, such as artificial intelligence (AI) and augmented reality (AR), the use of advanced and innovative technologies in foreign language (FL) education is understood to be minimal and constitutes a cause for concern (Godwin-Jones, 2021; Lomicka & Lord, 2019; Tafazoli & Picard, 2023). Indeed, as described in the World-Readiness Standard for Learning Languages, technologies can and should be used to support FL instruction, opportunities for practice/use in the classroom, and assessment.

A well-discussed challenge to doing this, however, is that teachers’ attitudes and their practices utilizing technology in FL instruction are not well understood, especially in less commonly taught languages (LCTLs). Furthermore, how to effectively integrate technology into instructional practice are also not well understood but are needed to support LCTL teachers and their use of technology to enhance FL learning. These knowledge gaps negatively impact teacher preparation, professional development, benchmarking, and assessment in US-based LCTL classrooms.

To address these gaps in understanding, the current project investigates the use of technology in FL programs and attitudes toward its use among LCTL teachers in the US from a variety of educational settings and with a broad range of experiences. Our mixed methods design begins with a large-scale survey to provide an overview of teachers’ current usage, attitudes, and perceptions toward technology in FL teaching. Following the survey, qualitative interviews will be conducted with LCTL teachers to explore and explain the survey results in more detail. Through combining the strength of both qualitative and quantitative research, this explanatory sequential mixed-methods study not only provides generalizable findings to the larger language teaching community but also develops contextualized understandings of participants’ words.

Because this project intends to develop new knowledge about (i) teachers’ use of technologies in FL programs; (ii) the needs for increased or improved instruction in FL; (iii) the use of technology in FL programs emphasizing LCTLs, its results will be critical to research projects and programs with similar interests. We therefore intend to maximize our results in at least four ways: 1) disseminating project findings through publications, presentations, and workshops/seminars; 2) making this project’s data and materials freely accessible to other users via digital repositories; 3) creating specialized resources with this project’s findings and materials for training LCTL specialists; 4) developing non-academic impact through non-academic publications.

This proposal addresses the Competitive Preference Priority because the research project will be implemented in partnership with Delaware State University, a minority-serving institution.

## University of Central Florida

P017A230010

*Exploring Language Learning with Educational Computer and VR Games*

This research proposal will investigate how language instruction can be optimized by integrating video games as specialized materials within language courses at the University of Central Florida, a large, public, Hispanic-serving institution (HSI). The research team has developed a suite of educational games called ELLE the EndLess LEarner: 2 computer-based games and 3 virtual reality (VR) games, all intended to help second language (L2) learners practice vocabulary—a key point of frustration for many students. Educators have long seen great potential in leveraging games for learning, but their use remains sparse in L2 education.

This project centers on 3 primary research questions and 2 sub-questions:

* RQ1: How do educational video games impact learners?
	+ SQ1: What linguistic, social, and physical affordances can video games (computer and VR platforms) provide L2 learners?
	+ SQ2: What are the implications of different game platforms (computer versus VR) on formal instructional use?
* RQ2: How can video games be best implemented within language courses to increase learners’ performance?
* RQ3: How does the use of educational video games in coursework impact the role, perceptions, and pedagogy of the language teacher?

To answer these questions, we propose a three-phase research project. In the first phase, we will develop a Portuguese language module for the five games and pretest-intervention-posttest-post interview studies in a laboratory setting with 20-30 participants per game (150 maximum)—enough per condition to seek statistical significance between games—creating a baseline of each game’s efficacy and player perceptions. Phase 1 also involves a survey assessing the entertainment gaming preferences of students enrolled in any language course at our university in Fall 2023, to better inform phases 2 and 3.

In phases 2 and 3 of our project, we will create additional language modules for the five games and incorporate them into Portuguese and Spanish courses at our university. Each semester, language students will take a pretest, posttest, and participate in a focus group interview; their gameplay data will be recorded, anonymized, and analyzed along with their course grades. Further, we will interview instructors each semester to see how the game impacts their role as teachers, their pedagogy, and their other perceptions of the use of the games, and if these perceptions change over the time of the grant period. Phase 3 will end with the creation of a faculty guide of best practices for implementing these games within L2 courses, which we will make publicly accessible, along with the ELLE games and modules, on our website: <https://tiny.cc/ellegames>.

The planned outcomes of each of these studies include dissemination of the results of the studies via academic conferences and journals, along with the faculty guide. We anticipate far-reaching impact from this project, as the results will inform the field as to the affordances that video games on different platforms (computer and VR) can have on language learning in isolation (phase 1) and within the context of a language course (phases 2 and 3). While we predict that integrating the games within coursework will be more effective than isolated play, our studies will address two key gaps in knowledge: the best practices for integrating video games into language teaching and the ways that L2 video games impact instructor role, perceptions, agency, and pedagogy.

## University of Cincinnati

P017A230042

*Making Sense in Virtual Environments: Sensory Research in Virtual Reality for Language Learners*

Virtual reality (VR) holds tremendous potential for language learners in that it can greatly expand access to culturally authentic practices, products, and perspectives of a target culture, providing valuable opportunities to develop transcultural competence. Indeed, language educators and learners alike have shown an increasing demand over the past decade for VR experiences. However, the technical resources and training that VR requires can be a barrier to large-scale, methodologically rigorous empirical research in the impact of VR experiences.

This research study will overcome such obstacles by leveraging the resources and partnerships of the newly established Curricular Enhancement, Development, Access, and Research Title VI Language Resource Center (CEDAR LRC), housed within the University of Cincinnati, to conduct a multisite empirical study (n = 100) on language learners’ sensory responses to high-immersion VR experiences. The VR environments are being developed for CEDAR LRC projects as part of an established collaboration with the UCSIM Center for Simulations & Virtual Environments Research. These novel VR experiences use augmented 360-degree video footage to present learners with interactive “day in the life” experiences of members of both Spanish- and Arabic-speaking communities. Data will be collected at the UCSIM Center’s dedicated space for VR research, in collaboration with a team of VR experts. In addition, the CEDAR LRC’s partnership with Union Institute and University (UIU), a minority-serving institution, will allow for a more diverse and representative sample population.

This study seeks to answer the following research questions: (RQ1) Which components of a VR experience elicit heightened sensory responses from language learners? (RQ2) How do language learners contextualize moments of heightened sensory responses in a VR environment? and (RQ3) Do heightened sensory experiences correlate with changes in transcultural competence? To address RQ1, a sensor worn on participants’ wrists will provide biometric data on electrodermal activity, optical pulse, and heart rate, to indicate elements of the VR experiences that elicit a heightened a sensory response (suggesting stress, excitement, etc.). For RQ2, researchers will conduct stimulated recall sessions immediately after the VR experiences to provide qualitative context for the sensory data. Data from sessions will be analyzed qualitatively using grounded coding for emergent themes and positive or negative valance to categorize learners’ reactions. For RQ3, a pre-validated survey instrument will assess transcultural competence before, immediately following, and six weeks after the VR experience. Inferential statistical analyses will investigate the relationship between instances of heightened sensory response and changes in learners’ transcultural competence.

Given that VR materials require a substantial commitment of time and resources for both development and training, this research will generate essential new knowledge for language educators and VR developers regarding how to best direct their efforts. This research meets the competition’s absolute priority of “research, studies, or survey projects” in areas (ii), (iv), and (v) as well as the competitive preference priority.

## University of Maryland – College Park

P017A230028

*Exploring the need for increased instruction in African Languages*

Addresses: “Studies and surveys to determine needs for increased or improved instruction in modern foreign languages, area studies, or other international fields” and Competitive Preference Priority.

The University of Maryland, in partnership with Howard University and the University of Maryland Eastern Shore, proposes to conduct a multi-pronged research project to understand the current state of African language instruction in U.S. higher education, to document student demand for African language courses in their colleges and universities, and to address the feasibility of increasing African language instruction in those institutions.

Multiple agencies of the U.S. government, including the Department of Education, have advanced statements or initiatives regarding the importance of U.S.-African relations, and the national need for expertise in the region of Africa. However, African languages are among the least commonly taught languages in the U.S., with only Arabic included in the top 15 languages taught in U.S. colleges and universities, and no other languages exceeding 2,000 in enrollment as of 2016 (compare, for example, Japanese, with nearly 70,000 students enrolled as of 2016). Many African languages are only offered at a small number of institutions, or are offered at a given institution for a short period of time and then discontinued when a particular source of funding runs out or a key faculty member leaves the institution. The project team knows of no systematic research undertaking to quantify or document the reported need for more courses in African languages.

The project will consist of three initiatives. First, the team will research the current state of African languages instruction around the country, collecting data from college and university websites and direct communication with faculty and students in these programs. Second, the team will survey students at a representative sample of colleges and universities nationwide to understand the perceptions and wishes of students regarding the instruction of African languages. Surveys will investigate what proportion of students would like to study an African language, which language they would like to study and at what level(s), and what their motivation is for wanting to study an African language. Finally, the team will survey faculty at a subset of the institutions from which student responses were received to understand the feasibility of these institutions offering (more) courses in African languages.

The findings of all three initiatives will be reported through a variety of means, both for academic and wider audiences. Reporting vehicles will include research articles, conference presentations, research briefs, and infographics, and will be distributed via websites, mailing lists, and social media outlets of the participating organizations, as well as direct contact with the colleges and universities potentially affected by the findings of the research. The team expects the results of the research to be useful to institutions who may want to offer (more) courses in African languages, to curriculum developers and textbook authors, and to government and private funding sources.

## University of Wisconsin-Madison

P017A230009

*Exploring Full Learner Autonomy in Self-Instructional LCTL Learning*

This groundbreaking study documents the strategies and outcomes of fully self-instructional learning of less commonly taught languages (LCTLs), responding to the national need for increased access to effective learning opportunities for studying LCTLs, especially at high proficiency levels. The study will also address international calls for empirical research on language learner autonomy, self-directed learning, self-assessment, and resource management strategies.

The study will be conducted at the University of Wisconsin-Madison, a national leader in LCTL education and research. The study will analyze data collected from 60 self-instructional language learners (SILLs) studying 28 African and Southeast Asian LCTLs through UW-Madison’s Multilanguage Seminar, an innovative two-semester sequence of fully self-instructional LCTL learning developed and taught by the co-PIs, over nine academic years and three summers. The dataset includes SILLs’ individual study plans, daily or weekly learning journal entries and students’ responses to one another, learning resources SILLs created, reflective essays, self-assessment plans and results, emails to the instructors with assignments or feedback, and other homework assignments. The qualitative study will answer six main research questions:

1. What kinds of learning goals do SILLs set for themselves, and what evidence is there that they achieve them?
2. What strategies do SILLs use to achieve their goals, and which are most effective?
3. How do SILLs find, evaluate, and create target language (TL) resources?
4. In the absence of a teacher or tutor, what role do conversation partners play in LCTL self-instruction?
5. How do SILLs use the internet to research their TLs and share information with others?
6. How do SILLs assess and offer evidence of their learning?

The core project activities are data preparation, analysis, and dissemination of findings, including a free workshop for language instructors and program administrators, presentations at scholarly conferences, and at least one publication, a book, in Year 3. Robust dissemination and evaluation plans ensure that the project will broadly impact U.S. foreign language education and research.

The proposed study aligns with the purpose of the IRS program to strengthen and improve foreign language education in the United States through research on effective methods for providing instruction and achieving competency in foreign languages, especially in LCTLs, and in assessing the outcomes and effectiveness of programs supported by Title VI of the Higher Education Act.

The project addresses the competitive preference priority by expanding access to effective self-instructional learning of LCTLs. The study partners with an HBCU, and a faculty member and administrator at a community college will conduct the project evaluation. Howard University will co-host the Year 2 dissemination workshop, prioritizing registration for language instructors and program directors from community colleges, HBCUs, MSIs, and TCUs.

# Specialized Instructional Materials

## Center for Applied Linguistics

P017A230011

*Building an Effective Heritage Language Program: Training for K-12 Teachers, Administrators, and Families*

This proposal outlines a Title VI International Research and Studies Specialized Instructional Materials Project to be conducted by the Center for Applied Linguistics (CAL). CAL will develop a free, online self-access training program that supports various stakeholders – teachers, administrators, and families - in understanding best practices for and their roles in building and sustaining an effective K-12 heritage language program. The project will result in Building an Effective Heritage Language Program, a program with interactive training modules and practical supplementary resources that will fill a major gap in the availability of training and resources designed to support these key stakeholder groups in developing, maintaining, and supporting heritage language programs in K-12 public schools.

Students need advanced proficiency in at least one language other than English to work in cross-cultural settings and succeed in today’s globally competent workforce, and a focus on heritage language learners is critical to supporting language capacity in the U.S., but there are few U.S. K-12 schools that offer heritage language programs (Leeman et al., 2015). Providing research-based, high-quality K-12 heritage language programs in U.S. public schools, which are programs tailored to the unique needs of heritage language learners (students with a cultural or familial connection to a language), will support this growing population of learners in developing high levels of linguistic and cultural proficiency in their heritage languages. By creating an accessible, comprehensive training program for building and sustaining K-12 heritage language programs, this project will contribute to the growth and implementation of heritage language education in the U.S., promote awareness and involvement among key stakeholders (teachers, administrators, and families), and create and strengthen connections between schools/districts serving heritage language learners and larger heritage language communities.

This project will achieve three main objectives:

1. Develop a free, self-access training program that will support teachers, administrators, and families in understanding best practices for and their roles in building and sustaining an effective K-12 heritage language program.
2. Increase access and equity for multilingual learners by promoting the value of specialized learning opportunities for students with home languages other than English.
3. Build capacity in heritage language programs through the provision of resources that will help educators develop and advocate for these programs in their schools and/or districts and strengthen family engagement and connections to heritage language communities.

These objectives will be achieved by developing a web-based training program that can be adapted for local needs. Training modules will include narrated presentations, videos from stakeholders in K-12 heritage language programs, interactive activities, checks for learning, and discussion/reflection questions. The modules will also be supplemented by resources for application and further learning. In addition to providing practical guidance for building and sustaining programs, the training program will emphasize the benefits of these programs at the K-12 level and highlight ways in which heritage language programs are uniquely positioned to ensure equity for heritage language learners, as researchers agree mainstream foreign language classes are not designed to meet the unique needs of this group of students and are thus deemed less appropriate and less effective for these learners as compared to heritage-specific programs (Ennser-Kananen & King, 2018). Recommendations will also be provided for enhancing school/community partnerships and family engagement to promote involvement of those outside of the school system, which is essential to the sustainability and longevity of programs.

## Embry-Riddle Aeronautical University

P017A230017

*Interactive Website for Cyber Chinese Project*

In partnership with Northern Virginia Community College (NOVA), Embry-Riddle Aeronautical University (ERAU) is proposing a three-year project to develop an Interactive Website for Cyber Chinese (IWCC) and a vocabulary companion mobile App for teaching Mandarin Chinese with a focus on computer, internet, and cybersecurity-related content. The IWCC project aims to improve and strengthen Mandarin Chinese instruction by providing open educational resources (OER) to anyone interested in learning, regardless of gender, race, national origin, color, age, or disability. The project responds to the Competitive Preference Priority "Promoting Equity in Student Access to Educational Resources and Opportunities" by implementing the IWCC in some Chinese classes at NOVA, an institution where underrepresented groups collectively comprise about half of the student population.

The intellectual merit of this project extends nationwide as the resulting OER will be readily adaptable to new and existing Chinese language programs of all proficiency levels at a variety of educational settings. Particularly, the project has positive implications for national security and intelligence as learners with Chinese proficiency and expertise in computer and cybersecurity are in high demand in government agencies, particularly in the national security and intelligence domain. The U.S. Department of Defense has prioritized strategic competition with China due to its importance in global affairs. However, current language learners lack resources to learn content knowledge in Chinese, leading to length training for new language analyst hires. The IWCC project intends to address this gap by providing learners with the necessary skills and knowledge to succeed in this important field.

The IWCC will consist of a Homepage, Students, Instructors, and Learning Forum. The Students page will provide links to learning modules at different proficiency levels that adhere to ACTFL's guidelines for Novice, Intermediate, and Advanced proficiency levels. Each module will provide interactive practice emphasizing language acquisition, content knowledge, or authentic knowledge and skill application tasks. The Instructors page will provide assessment tools and answer keys. The Learning Forum page will provide a virtual space for learners to interact with each other and instructors. The project also includes a mobile App as a companion learning channel for students to practice new vocabulary.

The IWCC project will benefit Science, Technology, Engineering, and Math (STEM) students by developing critical thinking and problem-solving skills through combined STEM and target language education. The project also aims to cultivate Arts students' 21st century literacy skills encompassing media and information technology platforms. This project also seeks to attract a diverse range of learners to achieve advanced levels of critical language proficiency and prepare students for fruitful careers in critical sectors such as international business, diplomacy, intelligence, and cybersecurity.

Design and development of the IWCC will take three years, with the design team focused on creating the Easy level in Year 1, Medium level in Year 2, and Hard level in Year 3. To ensure quality control of the IWCC OER, a holistic evaluation plan will be established, which includes internal formative evaluation and external evaluation via questionnaires, interviews, observations, field testing, and IWCC website system data. After validating IWCC features and quality standards, NOVA will adopt it as primary instructional material for its virtual synchronous courses, thereby removing barriers from NOVA students financially burdened by expensive instructional materials and learning subscriptions.

## Florida International University

P017A230050

*An HSI and HBCU collaboration to create open access curricula celebrating Blackness in Latin America*

The proposed project aims to develop and publish specialized instructional materials to enhance Spanish language and Latin American area studies, as well as train Spanish language teachers, by developing an Open Access Tasked-Based Spanish Curriculum that is designed to improve Spanish language-learning outcomes and experiences for Black students. This curriculum will address the lack of representation and the dominant narrative of race-neutrality that prevents the explicit consideration of Black language learners and their specific needs. Through this project, educators and policymakers will be able to address issues of equity in language education and provide all students with access to high-quality language learning opportunities.

The project is consistent with the IRS program purpose, which aims to improve and strengthen instruction in modern foreign languages. The project methodology involves the creation of an open-access Spanish II curriculum, building upon the success of the previously developed open-access Spanish I curriculum, funded by the National Endowment for the Humanities. The curriculum is being developed in collaboration between Florida International University, a Hispanic-Serving Institution (HSI), and Florida Memorial University, a Historically Black University (HBCU). The project responds to the Competitive Preference Priority by focusing on the needs of Black language learners and their unique experiences.

The project puts into action Critical Race Pedagogies (Anya, 2020) in order to resist “linguistic pushout,” or the systematic erasure of Black students from language learning classes and curricula (Austin, 2022). It also confronts the racializing myths that erase Afrodiasporic and Indigenous (hi)stories from Spanish language curricula. By doing so, this project aims to challenge the dominant narratives that have been perpetuated in language learning materials, and promote a more inclusive and equitable learning environment for all students.

The project timeline includes a needs analysis, Task-Based Language Teaching curriculum design for Spanish II, pilot, feedback, and revision over the first two years, with the third year focusing on teacher-training and on measuring efficacy and impact. Teacher-training will be done via local in-person workshops and a national webinar. The efficacy of the project will be established using multiple approaches, including measuring student outcomes (improvements in learning, proficiency gains, ethno-racial affinities, and awareness) as well as teacher outcomes (changes in teacher cognition, self-efficacy, and confidence in teaching about Black contributions in the Spanish-speaking world with the new materials developed). The impact of the project will be established with the number of curriculum downloads across the country to determine reach, as well as classroom implementations. The curriculum will be made available online for free to instructors and will feature interactive feedback components. This will also help to assess the effectiveness of dissemination strategies and identify areas for improvement.

When language learners have the opportunity to interact in contexts where they feel a sense of belonging, they make measurable gains in language acquisition (Anya, 2017; Anya et al., 2020; Baralt et al., 2022; Baralt & Gómez, 2022; Clemons, 2022). Therefore, this project has the potential to not only improve Spanish language learning outcomes for Black students, but also to contribute to a more inclusive and equitable learning environment for all language learners.

## Language Mentors International, LLC

P017A230032

*Levantine Arabic Textbooks for Novice/ILR 0+ - Advanced/ILR 2 Adult Learners*

This grant application proposes the development of three textbooks and teacher guides over three years to teach the Levantine Arabic dialect to adult learners at different proficiency levels. The Levantine Arabic dialect is a variation of Arabic spoken in the Levant region, which includes Lebanon, Syria, and Jordan (Al-Wer, 2014).

The U.S. National Security Education Program (NSEP) recognizes the importance of the Levantine Arabic dialect and considers it a preferred language. The Defense Language Institute (DLI), Language Training Centers (LTC) programs, and other governmental institutions, teach this dialect as part of an initiative of the Defense Language and National Security Education Office (DLNSEO), (National Security Education Program, 2021).

Despite its importance for national security and law enforcement agencies, there is a lack of textbooks that utilize researched-based pedagogies and promote intercultural communicative competence for teaching and learning this dialect.

Materials produced through this project will be open educational resources, available to institutions and individuals via online platforms. The textbooks will be designed for novice/ILR 0+, intermediate/ILR 1, and advanced/ILR 2 level heritage and non-heritage learners. Each textbook will consist of 10 thematically organized chapters with two lessons per chapter. The first lesson for each chapter will focus on spoken language in the dialect and the second lesson will expose learners to Modern Standard Arabic (MSA). This approach will enable learners to communicate effectively in formal and informal settings. Online interactive activities will also be included to enhance the learning experience.

The Language Skills Level Descriptions defined by ACTFL and ILR will guide the design of learning activities, and the Instructional Development Cycle model (Fenrich, 2004) will be used to develop, test, and revise the textbooks in multiple phases. Trials will be conducted with at least two education institutions, and internal and external evaluators will provide feedback to ensure the textbooks' effectiveness.

The final product will address the Absolute Priority of developing specialized materials for students and teachers of the Levantine Arabic language and can also be used as models to develop materials for other world languages. This project will also address the Competitive Preference Priority by working closely with minority serving institutions that offer Levantine Arabic programs, including the Center for the Study of Muslims and Arab Worlds at California State University, San Bernardino (CSUSB) and Apex Language Institute of America (ALIA), a community-based school.

The project will have significant implications for national security, law enforcement, and intercultural communication, making it a valuable investment for the funding agency.

## Language Mentors International, LLC

P017A230033

*Developing Iraqi Arabic Textbooks for Novice/ILR 0+-Advanced/ILR 2 Adult Learners*

This grant application proposes the development of three textbooks and teacher guides over three years to teach the Iraqi Arabic dialect to adult learners at different proficiency levels. The Iraqi Arabic is one of the most widely spoken dialects in the Middle East, with unique characteristics that distinguish it from other Arabic dialects.

The U.S. National Security Education Program (NSEP) recognizes the importance of the Iraqi Arabic dialect and considers it a preferred language. The Defense Language Institute (DLI), Language Training Centers (LTC) programs, and other governmental institutions, teach this dialect as an initiative of the Defense Language and National Security Education Office (DLNSEO).

Despite its importance for national security and law enforcement agencies, there is a lack of textbooks that utilize researched-based pedagogies and promote intercultural communicative competence for teaching and learning this dialect.

The proposed textbooks will be designed to cater to novice/ILR 0+, intermediate/ILR 1, and advanced/ILR 2 level heritage and non-heritage learners. Each textbook will consist of 10 chapters with two lessons per chapter, with the first part of the lesson focusing on spoken language in the dialect and the second part exposing learners to Modern Standard Arabic (MSA). This approach will enable learners to communicate effectively in formal and informal settings. Online interactive activities will also be included to enhance the learning experience.

The Language Skills Level Descriptions defined by ACTFL and ILR will guide the design of learning activities, and the Instructional Development Cycle model (Fenrich, 2004) will be used to develop, test, and revise the textbooks in multiple phases. Trials will be conducted with at least three education institutions, and internal and external evaluators will provide feedback to ensure the textbooks' effectiveness.

The final product will address the Absolute Priority of developing specialized materials for students and teachers of the Iraqi Arabic language and can also be used as models to develop materials for other world languages. This project will also address the Competitive Preference Priority by working closely with minority serving institutions that offer Iraqi Arabic programs, including the Center for the Study of Muslims and Arab Worlds at California State University, San Bernardino (CSUSB) and Apex Language Institute of America (ALIA), a community-based school.

The project will have significant implications for national security, law enforcement, and intercultural communication, making it a valuable investment for the funding agency.

## Lwin, Chan

P017A230047

*Intermediate Burmese eTextbook*

Project Director: Chan Lwin, ASU

Myanmar language (aka Burmese) is the official language for 38 million native speakers in a country of 52 million people. It is also the lingua franca of the country where many languages are spoken by the different ethnic groups. With the recent military coup, Myanmar language teaching that has already faced numerous challenges took a devastating blow. Many of the institutions that have historically supported the teaching of Myanmar language are facing difficult decisions to sustain language instruction. There are no textbooks available beyond introductory level. Burmese is not an option on popular online resources that offer language learning such as Duolingo, Babbel, Rosetta Stone, Mondly and FluentU.

This project will respond to the need for an intermediate level electronic textbook that includes engaging reading and listening materials for teachers to use and also an option for students to learn independently. The goal of this project is to develop and design teaching modules using authentic reading texts and audio clips in the form of shareable eBook. These modules will also include pre-, during-, and post-reading activities that will engage both interpretive and interpersonal language skills of the learner. The modules will cover materials from the novice-high, intermediate-low and intermediate-mid levels, as defined by the ACTFL proficiency guidelines. The textbook development meets the absolute priority of specialized Instructional Material to be used by students and teachers of modern foreign language, and will address the need of teaching and materials to be used in the minority-serving institution such as Arizona State University to promote equity in student access to educational resources and opportunities.

This e-textbook will be one of a kind that specifically addresses the dire need for teaching materials in the field of Burmese language studies. The project will accomplish the following objectives:

1. To create an OER textbook with authentic or authentic-edited/adapted materials.
2. To create activities that align with the modules in the textbook.
3. To create both learner-facing and teacher-facing instructional materials.
4. To create self-learning/independent-learning versions of the materials.
5. To pilot the materials and lessons developed for in-class teaching and self-learning.
6. To redesign and implement the textbook based on feedback.

The outcome of this project will include 16 reading lessons with 5 or more activities for the second year Burmese course curriculum. Some modules will have supplemental listening materials for the students.

Project personnel include Chan Lwin, a Burmese instructor at Arizona State University (Hispanic Serving Institution); Maw Maw Htun, a Burmese instructor and PhD candidate at Northern Illinois University; Ye Min Tun, a Burmese instructor at Johns Hopkins University; and Kenneth Wong, a Burmese instructor at the University of California Berkeley. All team members have previously collaborated on the Reading Proficiency Assessment workshop. Lwin, Htun, and Tun have also completed the Reading Material Development workshop offered by the Southeast Asian Language Council.

## Michigan State University

P017A230036

*OER Collaborative: Enhancing Language Teaching through Open Education Resource (OER) Language Textbook Development and Partnerships*

The objectives of this project are to develop, publish, and disseminate specialized instruction materials in the form of Open Education Resource (OER) language textbooks for South Asian (SA) and Southeast Asian (SEA) languages. The OER language textbooks’ primary audience will be SA and SEA language instructors and learners from a variety of learning contexts including community colleges, MSIs, and HBCUs, as well as those engaging in a guided self-study working with a language tutor or in classroom-based language study at various institutions. The proposed activities include: (i) developing OER content for multiple languages and levels; (ii) convening workshops for groups of OER textbook authors to initiate textbook creation and plan content development; and (iii) publishing and promoting OER language textbooks developed through the project on an ongoing basis. The OERs developed will be free and open for use by the public, including students at community colleges, HBCUs, TCUs, and MSIs, where Asian Less Commonly Taught Languages (LCTLs) instructors and instructional materials may not be readily available. OERs present innovation and opportunity for increasing affordable, inclusive, and equitable access to Asian language study, international education, knowledge sharing, fostering pedagogical innovation, and supporting personalized accessible learning to ensure student success.

OER Content Development and Publication: The project seeks to develop OER language textbooks (four per project fiscal year) for LCTLs over a three-year period, for a total of 12 volumes. The LCTLs for which texts are proposed will be drawn from a list of important national and regional languages including Bahasa Indonesia, Bangla, Filipino/Tagalog, Hindi, Khmer, Persian, Tamil, Urdu, and Vietnamese. They will include volumes for basic, intermediate, and advanced levels as well as for specialized uses such as business or law. The project will engage leading language faculty instructors from a variety of institutions to serve as authors and content creators for the different languages. Dr. Rajiv Ranjan, who serves as PI and co-Director for the project, will mentor and arrange for peer review of the volumes. To create content for the project, the MSU project team will work with Dr. Ranjan to collaborate with language faculty instructors at MSU and those affiliated with Council of Teachers of Southeast Asian Languages (COTSEAL), South Asian Language Teachers Association (SALTA), South Asian Summer Language Institute (SASLI), Southeast Asian Language Council (SEALC), and Southeast Asian Studies Summer Institute (SEASSI). The timeline for each OER language textbook is 6-9 months for content development and 3 months for OER team review and publication processing, which includes content editing, peer review, testing and feedback, accessibility reviews, preparation for release including output formatting.

Key Stakeholder Engagement and Dissemination. Following publication, the project team will focus on engagement with the community of potential adopters, including SA and SEA language instructors through the networks of the collaborating authors, including but not limited to the COTSEAL, SALTA, SASLI, SEALC, and SEASSI.

Annual Workshop. Each year MSU’s Asian Studies Center will convene language instructors co-authoring the OER textbooks for the fiscal year. The 2-day in-person workshop will be held on the MSU campus in East Lansing. Workshop participants will include content creators from MSU and those affiliated with institutions of excellence in Asian Studies (e.g., the University of California, the University of Michigan, and the University of Wisconsin) from across the US.

## Pennsylvania State University – University Park

P017A230018

*Improving Instruction in International Agriculture*

The proposed project aims to leverage the expertise of research universities to address the pressing need for secondary educators to secure current technical updates regarding global food, fiber, and natural resources. While applicable to curriculum and instruction in secondary agricultural education, agriculture practices and food preferences vary widely across different cultures and regions, which provides an authentic context to explore the intersection of culture and agriculture. As the world faces increasingly complex issues such as food insecurity, climate change, biodiversity loss, poverty, and conflict, a global perspective is crucial to effectively address these challenges with care taken toward racial and gender inequalities, indigenous rights, and the preservation of traditional ways. By providing educators with new lenses to guide their learners through these issues, we can better equip them to discuss the complexities of the international food system with their students. With the strengths of universities and the need for improved secondary agriculture instruction in mind, this project helps to bridge the gap between academia and practical classroom instruction. The objectives of the proposed project are as follows:

1. To enhance the knowledge and skills of secondary agriculture teachers in the field of international agriculture, so that they are better equipped to educate their students on the complexity of global food systems.
2. To build a community of practice among secondary agriculture teachers interested in international agriculture, where they can share best practices, collaborate on lesson plans, and engage in ongoing professional development opportunities that expand their global perspectives and networks.

The proposed project seeks support to create a new series of professional development courses to be offered in an asynchronous digital format through the established and thriving Global Learning in Agriculture Community (GLAG). This will be accomplished in a four-step process: 1) Leveraging expertise at research universities and other international agriculture organizations to develop the professional development courses; 2) The courses will be pretested by secondary agriculture educators, and the courses will be revised based on their feedback; 3)The Global Teach Ag Network will house the courses on the GLAG Community digital platform, oversee the micro-credentialing process, and will continue overall maintenance of the digital community of practice; 4) Educators will access the courses free of charge through the free GLAG Community. At the end of the three-year project, fifteen digital professional development courses for secondary agriculture educators focused on international agriculture will be available in the GLAG Community of practice, overseen by the Global Teach Ag Network (GTAN). Educators will be able to access the asynchronous courses free of charge and receive a micro-credential upon completion of the final assessment. Through the GLAG Community of practice, they will be able to ask questions about the course content and share how they have implemented the information in their context.

## Rochester Institute of Technology

P017A230037

*“Language for STEAM”: Developing Language Instructional Materials for Science, Technology, and Arts*

Rochester Institute of Technology proposes to develop and publish interdisciplinary language instructional materials for science, technology, and arts. These materials are for use in three intermediate-high to advanced-low courses, including Chinese for Science and Technology, Spanish for Science and Technology, and Italian for Fine and Applied Arts. The developed materials will be publicly available and disseminated on a website prototype for interactive learning, which makes them accessible to a wider range of learners.

Despite considerable research on Language for Specific Purposes (LSP), most instructional materials focus on only a handful of areas, such as business, healthcare, and hospitality. The resources remain very limited in teaching foreign languages for the rapidly growing science, technology, engineering, arts, and mathematics (STEAM) fields. Moreover, the published textbooks often target students who seek to pursue STEAM education in a foreign country and cannot cater to the needs of learners in U.S. colleges who ask for more engaging and authentic course materials. This presents us with a unique opportunity to expand the LSP to STEAM fields, which have not only seen an increasing number of enrollments across all types of U.S. higher education institutions but are also significant to the national interest. This project seeks to fill the gap by developing effective instructional materials in target languages for STEAM, which better engage students with language learning and encourage more career-oriented students to seek international experience and advanced-level proficiency in Chinese, Italian, and Spanish.

This three-year project takes a deliberate and multi-phased approach to design materials integrating STEAM content into foreign language learning. The evaluation and revision will be ongoing throughout the development cycle. By making the developed materials available to the public, this project will improve and strengthen foreign language instruction and benefit language programs nationwide, especially those wishing to attract and retain language learners from STEAM majors. The outcomes of this project will broaden students’ horizons and equip them with the necessary skills to understand and communicate scientific concepts, technological methods, and creative artistic ideas in target languages.

Our proposal responds to the Competitive Preference Priority for the FY 2023 IRS competition, which seeks proposals for “Promoting Equity in Student Access to Educational Resources and Opportunities”. In addition to our collaboration with two experts from minority-serving community colleges in New York City, the current project has great potential to facilitate future developments of course materials used in lower-level or upper-level language and culture classrooms, making them suitable for attracting and retaining career-oriented students to foreign language learning in community colleges and minority-serving institutions.

## University of California – Berkeley

P017A230043

*Translating Machine Translation*

The Berkeley Language Center (BLC) at the University of California, Berkeley seeks funding to support Translating Machine Translation for Language Education to Promote Language Learning, Critical Digital Literacies, and Global Citizenship. The objectives of this project are to develop Specialized Instructional Materials that support student use of machine translation tools in eight (8) languages (Arabic, Dutch, German, Filipino, French, Hindi, Italian, Mandarin Chinese) in ways that promote:

* language proficiency in the target language in all skills, including productive (writing, speaking) and receptive skills (listening, reading);
* critical digital literacies, including critical thinking and understanding the affordances and limitations of technologies like machine translation;
* global citizenship, including uses of machine translation in increasingly multilingual workplace contexts and the ethics of machine translation use.

These instructional materials are essential given the dearth of research-based, easily-integratable materials on this topic and because current approaches to dealing with machine translation tools (i.e., bans) are ineffective and detrimental to student learning.

The deliverables created as part of this project will include:

1. Templates (12) on key components of the training students need to use MT tools. These templates will be created for beginning, intermediate, and advanced levels, and will be fully adaptable to any language or context.
2. Instructional modules (24) in 8 languages. A set of core templates from Deliverable #1 will be developed into instructional modules and piloted in multiple languages, including less-commonly taught languages in the US (e.g., Chinese, Arabic).
3. A guide to machine translation for language educators. An approachable summary of how MT and other online tools work and the advantages/limitations of their use.
4. An annotated bibliography of key publications from research, theory, and practice on machine translation and language education.
5. Conference and recorded presentations to disseminate information about the instructional materials and how to use them.

All materials will be open-access and available for free on the BLC website.

This project is directly aligned with the IRS program’s purpose in that it aims to create specialized materials that will strengthen the teaching of foreign languages and area studies. The materials created will be both specific and generalizable: the templates (Deliverable #1) will be adaptable to any language and context. The instructional modules (Deliverable #2) will provide ready-to-use materials for eight languages.

The project includes a robust evaluation plan (including evaluation by expert consultants and piloting with students) to ensure the highest quality of materials. Materials will be disseminated through multiple national conference presentations as well as recorded presentations on the adaptation of project materials to different contexts (K-12, university, community college). These recorded presentations will be made available as open-access resources on the BLC website to further disseminate project materials.

The project aligns with the Competitive Preference in creating materials that are essential for community college language instructors (see Dr. Ferrara letter of support, Appendix D) and in piloting materials at a minority-serving institution (UC Berkeley, AANAPISI).

## University of Texas – Austin

P017A230044

*Developing an Open Educational Resource Web-based Textbook for First- and Second-Year Russian*

The Center for Russian, East European, and Eurasian Studies (CREEES) at the University of Texas (UT) seeks International Research and Studies Program Title VI funding from the Department of Education (ED) to create an innovative open educational resource (OER) curriculum for instruction in first- and second-year Russian language. Through this project we endeavor to harness our momentum and resources as a National Resource Center (NRC) and Foreign Language Area Studies (FLAS) institution and build upon years of experience in digital and OER language materials creation. CREEES will partner with the Department of Slavic and Eurasian Studies (DSES), Liberal Arts Instructional Technology Services (LAITS), the Center for Open Educational Resources and Language Learning (COERLL), the Texas Language Center (TLC), and the Disability and Access Office (DAO) to create OER language materials that align with best practices in foreign language teaching pedagogies and are also attuned to issues of equity, inclusivity, and accessibility.

The final product will be a significantly revised, modified, and supplemented version of a digital course and textbook for first- and second-year intensive Russian entitled Budem na svjazi (We’ll be in Touch or We’ll be Online). The project team will work with UT’s LAITS and COERLL to ensure that the materials align with OER guidelines. We will also work with DAO to adapt the curriculum into accessible instructional materials (AIM), compatible with assistive technologies (AT) for students who are blind, low vision, deaf, or hard of hearing. The project will meet the demand for AIM in language pedagogy by updating all existing content for maximum accessibility and adaptability, ensuring that the future use and evolution of these materials will meet the varied needs of all its users.

Additionally, the project will update the materials in response to recent calls to “decolonize” the field of Russian, East European, and Eurasian studies (REEES). The project team will create and integrate new materials that expose Russian language learners to the broader Russophone world, including the former Soviet republics and the Russian diaspora. This new curriculum will further the interdisciplinary study of REEES both by supplying a new and necessary contribution to OER language training in Russian, but also expand knowledge of the broader Russophone world.

This CREEES project directly responds to the competitive priority of “Promoting Equity in Student Access to Educational Resources and Opportunities.” Since fall 2020, UT has been a designated Hispanic Serving Institution (HSI), and CREEES actively embraces the challenge of diversifying the pool of students and scholars engaged in REEES at UT and nationally. Moreover, as a Title VI funded National Resource Center, CREEES works with an extensive network of K-16 schools and other minority serving institutions. We will actively promote this new curriculum, as well as our own course offered via campus extension, through this and our other national networks. The newly revised materials will be widely circulated and offered free of charge in a fully accessible form. They will be adaptable to all users under an open license, fulfilling a growing imperative to promote affordability, access, and equity in higher (and K-12) education.