U.S. Department of Education
Washington, D.C. 20202-5335

APPLICATION FOR GRANTS UNDER THE

FY 2022 Javits Application Package

CFDA # 84.206A

PR/Award # S206A220027

Gramts.gov Tracking#: GRANT13593924

OMB No. 1894-0006, Expiration Date: 02/29/2024

Closing Date: Apr 11, 2022

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Application for Federal Assistance SF-424

* 1. Type of Submission:
- [ ] Preapplication
- [x] Application
- [ ] Changed/Corrected Application

* 2. Type of Application:
- [x] New
- [ ] Continuation
- [ ] Revision

* If Revision, select appropriate letter(s):

* Other (Specify):

* 3. Date Received: 04/11/2022

4. Applicant Identifier:

5a. Federal Entity Identifier:

5b. Federal Award Identifier: NA

State Use Only:

6. Date Received by State:

7. State Application Identifier:

8. APPLICANT INFORMATION:

* a. Legal Name: University of Connecticut

* b. Employer/Taxpayer Identification Number (EIN/TIN): [redacted]

* c. UEI: [redacted]

d. Address:

* Street1: 438 Whitney Road Ext., Unit 1133
Street2:
* City: Storrs
County/Parish: Tolland
* State: CT: Connecticut
Province:
* Country: USA: UNITED STATES
* Zip / Postal Code: 06269-1133

e. Organizational Unit:

Department Name: Sponsored Program Services

Division Name: Vice President for Research

f. Name and contact information of person to be contacted on matters involving this application:

Prefix:
* First Name: Tracy
Middle Name:
* Last Name: Bourassa
Suffix:

Title: Director of Pre-Award Services

Organizational Affiliation: University of Connecticut

* Telephone Number: [redacted]
Fax Number: [redacted]

* Email: [redacted]

Application for Federal Assistance SF-424

*** 9. Type of Applicant 1: Select Applicant Type:**

H: Public/State Controlled Institution of Higher Education

Type of Applicant 2: Select Applicant Type:

Type of Applicant 3: Select Applicant Type:

* Other (specify):

*** 10. Name of Federal Agency:**

Department of Education

11. Catalog of Federal Domestic Assistance Number:

84.206

CFDA Title:

Javits Gifted and Talented Students Education

*** 12. Funding Opportunity Number:**

ED-GRANTS-021622-001

* Title:

Office of Elementary and Secondary Education (OESE): Well-Rounded Education Programs: Jacob K. Javits Gifted and Talented Students Education (Javits) Program, Assistance Listing Number 84.206A

13. Competition Identification Number:

84-206A2022-2

Title:

FY 2022 Javits Competition

14. Areas Affected by Project (Cities, Counties, States, etc.):

Add Attachment | Delete Attachment | View Attachment

*** 15. Descriptive Title of Applicant's Project:**

Project Focus

Attach supporting documents as specified in agency instructions.

Add Attachments | Delete Attachments | View Attachments

Application for Federal Assistance SF-424

16. Congressional Districts Of:

* a. Applicant: CT-002 * b. Program/Project: CT-All

Attach an additional list of Program/Project Congressional Districts if needed.

Add Attachment | Delete Attachment | View Attachment

17. Proposed Project:

* a. Start Date: 10/01/2022 * b. End Date: 09/30/2027

18. Estimated Funding ($):

* a. Federal	[redacted]
* b. Applicant	
* c. State	
* d. Local	
* e. Other	
* f. Program Income	
* g. TOTAL	

*** 19. Is Application Subject to Review By State Under Executive Order 12372 Process?**

☐ a. This application was made available to the State under the Executive Order 12372 Process for review on .

☒ b. Program is subject to E.O. 12372 but has not been selected by the State for review.

☐ c. Program is not covered by E.O. 12372.

*** 20. Is the Applicant Delinquent On Any Federal Debt? (If "Yes," provide explanation in attachment.)**

☐ Yes ☒ No

If "Yes", provide explanation and attach

Add Attachment | Delete Attachment | View Attachment

21. *By signing this application, I certify (1) to the statements contained in the list of certifications and (2) that the statements herein are true, complete and accurate to the best of my knowledge. I also provide the required assurances** and agree to comply with any resulting terms if I accept an award. I am aware that any false, fictitious, or fraudulent statements or claims may subject me to criminal, civil, or administrative penalties. (U.S. Code, Title 218, Section 1001)**

☒ ** I AGREE

** The list of certifications and assurances, or an internet site where you may obtain this list, is contained in the announcement or agency specific instructions.

Authorized Representative:

Prefix: * First Name: Tracy

Middle Name:

* Last Name: Bourassa

Suffix:

* Title: Director of Pre-Award Services

* Telephone Number: [redacted] Fax Number: [redacted]

* Email: [redacted]

* Signature of Authorized Representative: Lisa Conant * Date Signed: 04/11/2022

Tracking Number:GRANT13593924 Funding Opportunity Number:ED-GRANTS-021622-001 Received Date:Apr 11, 2022 09:42:08 AM EDT

NOTICE TO ALL APPLICANTS

The purpose of this enclosure is to inform you about a new provision in the Department of Education's General Education Provisions Act (GEPA) that applies to applicants for new grant awards under Department programs. This provision is Section 427 of GEPA, enacted as part of the Improving America's Schools Act of 1994 (Public Law (P.L.) 103-382).

To Whom Does This Provision Apply?

Section 427 of GEPA affects applicants for new grant awards under this program. **ALL APPLICANTS FOR NEW AWARDS MUST INCLUDE INFORMATION IN THEIR APPLICATIONS TO ADDRESS THIS NEW PROVISION IN ORDER TO RECEIVE FUNDING UNDER THIS PROGRAM.**

(If this program is a State-formula grant program, a State needs to provide this description only for projects or activities that it carries out with funds reserved for State-level uses. In addition, local school districts or other eligible applicants that apply to the State for funding need to provide this description in their applications to the State for funding. The State would be responsible for ensuring that the school district or other local entity has submitted a sufficient section 427 statement as described below.)

What Does This Provision Require?

Section 427 requires each applicant for funds (other than an individual person) to include in its application a description of the steps the applicant proposes to take to ensure equitable access to, and participation in, its Federally-assisted program for students, teachers, and other program beneficiaries with special needs. This provision allows applicants discretion in developing the required description. The statute highlights six types of barriers that can impede equitable access or participation: gender, race, national origin, color, disability, or age. Based on local circumstances, you should determine whether these or other barriers may prevent your students, teachers, etc. from such access or participation in, the Federally-funded project or activity. The description in your application of steps to be taken to overcome these barriers need not be lengthy; you may provide a clear and succinct description of how you plan to address those barriers that are applicable to your circumstances. In addition, the information may be provided in a single narrative, or, if appropriate, may be discussed in connection with related topics in the application.

Section 427 is not intended to duplicate the requirements of civil rights statutes, but rather to ensure that, in designing their projects, applicants for Federal funds address equity concerns that may affect the ability of certain potential beneficiaries to fully participate in the project and to achieve to high standards. Consistent with program requirements and its approved application, an applicant may use the Federal funds awarded to it to eliminate barriers it identifies.

What are Examples of How an Applicant Might Satisfy the Requirement of This Provision?

The following examples may help illustrate how an applicant may comply with Section 427.

(1) An applicant that proposes to carry out an adult literacy project serving, among others, adults with limited English proficiency, might describe in its application how it intends to distribute a brochure about the proposed project to such potential participants in their native language.

(2) An applicant that proposes to develop instructional materials for classroom use might describe how it will make the materials available on audio tape or in braille for students who are blind.

(3) An applicant that proposes to carry out a model science program for secondary students and is concerned that girls may be less likely than boys to enroll in the course, might indicate how it intends to conduct "outreach" efforts to girls, to encourage their enrollment.

(4) An applicant that proposes a project to increase school safety might describe the special efforts it will take to address concern of lesbian, gay, bisexual, and transgender students, and efforts to reach out to and involve the families of LGBT students.

We recognize that many applicants may already be implementing effective steps to ensure equity of access and participation in their grant programs, and we appreciate your cooperation in responding to the requirements of this provision.

Estimated Burden Statement for GEPA Requirements

According to the Paperwork Reduction Act of 1995, no persons are required to respond to a collection of information unless such collection displays a valid OMB control number. Public reporting burden for this collection of information is estimated to average 1.5 hours per response, including time for reviewing instructions, searching existing data sources, gathering and maintaining the data needed, and completing and reviewing the collection of information. The obligation to respond to this collection is required to obtain or retain benefit (Public Law 103-382). Send comments regarding the burden estimate or any other aspect of this collection of information, including suggestions for reducing this burden, to the U.S. Department of Education, 400 Maryland Ave., SW, Washington, DC 20210-4537 or email ICDocketMgr@ed.gov and reference the OMB Control Number 1894-0005.

Optional - You may attach 1 file to this page.

1235-ProjectFocus_GEPAStatement.pdf | Add Attachment | Delete Attachment | View Attachment

Project Focus

Response to GEPA Section 427 Requirements

Project Focus will address the requirements of Section 427 of GEPA through several specific steps intended to ensure equitable access to, and participation in, project activities for students, teachers, and other beneficiaries with special needs. Specific actions will include the following:

- We will ensure that information about the opportunity to participate in the project is provided to all classroom teachers at grades 3-5 in participating schools, regardless of gender, race, national origin, color, disability, or age.
- We will engage with principals and teacher leaders in schools to facilitate outreach and build trust among teachers of all backgrounds to encourage participation.
- We will work with participating school districts to identify languages other than English used by student and parent populations. Communications from the project to parents (e.g., IRB parent notification forms) will be translated into parents' preferred languages by the project team in collaboration with the school district.
- We will emphasize in all project communications that all students in participating classrooms should be engaged in project activities, regardless of gender, race, national origin, color, disability, or age.
- We will partner with schools to provide or develop additional resources to support implementation with all learners, including supplementary guidance for scaffolding instruction for English learners or for students with disabilities. We will communicate with each teacher about individual students' existing accommodations that may require

modification of materials and/or activities and make such modifications to ensure all students' equitable participation. This may include, but is not limited to, changing the size of documents for students with sight difficulties, encouraging one-on-one conversation with students with hearing difficulties, and ensuring that all materials are such that students who may have issues with fine motor skills can participate (e.g., we will pre-cut any materials that would usually be cut out by students).

- As part of the orientation to the project, we will include materials that introduce teachers and students to the roles of both respectful speakers and listeners, with an eye toward encouraging participation in discussion from students of all abilities and backgrounds.
- Through professional learning activities, we will emphasize and discuss strategies for encouraging participation in discussion and challenging activities from all learners, including (a) providing specific feedback that is equitable across genders (i.e., avoiding praising ability for boys and effort for girls; (b) using prompts, examples, and texts that reflect experiences from a variety of backgrounds; and (c) deliberately teaching and reinforcing academic vocabulary to ensure that students are not prevented from accessing a learning experience by the way a question or task is worded. Some of these strategies are already reflected in the materials to be provided as part of the project, and ongoing review based on feedback and evaluation throughout implementation will support further refinement as needed to ensure access.

CERTIFICATION REGARDING LOBBYING

Certification for Contracts, Grants, Loans, and Cooperative Agreements

The undersigned certifies, to the best of his or her knowledge and belief, that:

(1) No Federal appropriated funds have been paid or will be paid, by or on behalf of the undersigned, to any person for influencing or attempting to influence an officer or employee of an agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with the awarding of any Federal contract, the making of any Federal grant, the making of any Federal loan, the entering into of any cooperative agreement, and the extension, continuation, renewal, amendment, or modification of any Federal contract, grant, loan, or cooperative agreement.

(2) If any funds other than Federal appropriated funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this Federal contract, grant, loan, or cooperative agreement, the undersigned shall complete and submit Standard Form-LLL, ''Disclosure of Lobbying Activities,'' in accordance with its instructions.

(3) The undersigned shall require that the language of this certification be included in the award documents for all subawards at all tiers (including subcontracts, subgrants, and contracts under grants, loans, and cooperative agreements) and that all subrecipients shall certify and disclose accordingly. This certification is a material representation of fact upon which reliance was placed when this transaction was made or entered into. Submission of this certification is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required certification shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

Statement for Loan Guarantees and Loan Insurance

The undersigned states, to the best of his or her knowledge and belief, that:

If any funds have been paid or will be paid to any person for influencing or attempting to influence an officer or employee of any agency, a Member of Congress, an officer or employee of Congress, or an employee of a Member of Congress in connection with this commitment providing for the United States to insure or guarantee a loan, the undersigned shall complete and submit Standard Form-LLL, ''Disclosure of Lobbying Activities,'' in accordance with its instructions. Submission of this statement is a prerequisite for making or entering into this transaction imposed by section 1352, title 31, U.S. Code. Any person who fails to file the required statement shall be subject to a civil penalty of not less than $10,000 and not more than $100,000 for each such failure.

* APPLICANT'S ORGANIZATION	University of Connecticut
* PRINTED NAME AND TITLE OF AUTHORIZED REPRESENTATIVE	
Prefix:	
* First Name:	Tracy
Middle Name:	
* Last Name:	Bourassa
Suffix:	
* Title:	Director of Pre-Award Services
* SIGNATURE:	Lisa Conant
* DATE:	04/11/2022

U.S. Department of Education Supplemental Information for the SF-424
Application for Federal Assistance

1. Project Director:

Prefix:	* First Name:	Middle Name:	* Last Name:	Suffix:
Dr.	Catherine		Little	Ph.D.

Project Director Level of Effort (percentage of time devoted to grant): 23

Address:

* Street1: 2131 Hillside Road, Unit 3007
Street2:
* City: Storrs
County: Tolland
* State: CT: Connecticut
* Zip Code: 06269-3007
Country: USA: UNITED STATES

* Phone Number (give area code) [redacted]
Fax Number (give area code) [redacted]

* Email Address: [redacted]

Alternate Email Address:

2. New Potential Grantee or Novice Applicant:

a. Are you either a new potential grantee or novice applicant as defined in the program competition's notice inviting applications (NIA)?

☐ Yes ☒ No

3. Qualified Opportunity Zones:

If the NIA includes a Qualified Opportunity Zones (QOZ) Priority in which you propose to either provide services in QOZ(s) or are in a QOZ, provide the QOZ census tract number(s) below:

4. Human Subjects Research:

a. Are any research activities involving human subjects planned at any time during the proposed Project Period?

☒ Yes ☐ No

b. Are ALL the research activities proposed designated to be exempt from the regulations?

☐ Yes Provide Exemption(s) #(s): ☐ 1 ☐ 2 ☐ 3 ☐ 4 ☐ 5 ☐ 6 ☐ 7 ☐ 8

☒ No Provide Assurance #(s), if available: FWA00007125

c. If applicable, please attach your "Exempt Research" or "Nonexempt Research" narrative to this form as indicated in the definitions page in the attached instructions.

1234-ProjectFocus_SF424Supp_NonExemptNarrative.p | Add Attachment | Delete Attachment | View Attachment

Project Focus

Non-Exempt Research Narrative

Human Subjects Involvement and Characteristics

Project Focus will examine the effects of a series of professional learning activities on teacher practices around facilitating higher-level classroom questioning and discussion in connection with gifted-focused instructional resources. The project will also focus on changes in teacher perceptions of students' high-potential behaviors over time and their self-efficacy and perceived skills surrounding classroom questioning and discussion. The primary focus will be on the collection of teacher data, including survey responses and observation data, but the project will also include the collection of achievement data and artifacts from students.

Teacher participants will be classroom teachers at grades 3-5 in schools in several states, expected to include Connecticut, Virginia, and Louisiana. We expect to involve a total of approximately 240 teachers over the course of the study: (a) 10 teachers in an observation group in Phase 1, (b) 80 teachers in an intervention study in Phase 2, and (c) 150 teachers in professional learning activities in Phase 4. Teachers to be involved in Phase 3 of the study will be drawn from the groups engaged in Phases 1 and 2.

Teachers are expected to be somewhat representative of the teacher population in each region, which suggests they are likely to be primarily female and primarily Caucasian, and that they will have at least achieved a bachelor's degree. Specific recruitment efforts, under applicable law, will encourage recruitment of teachers from traditionally underrepresented populations, so total participation will likely include a higher proportion of teachers from non-White groups than would be representative of the teacher population more broadly. No specific exclusion criteria are expected for the teachers, except that they must be in schools whose

leadership team agrees to the conditions of the study, and they must be intending to continue in the same school and grade level for at least a year beyond the point of entering the study. School administrators, representing similar characteristics except possibly older and with a higher percentage of males, will also be involved in the evaluation portion of the study.

Students at grades 3-5 will be included in the study if their teacher is involved in the study. Student participation will be limited to normal educational practice, with completion of assessments that are part of the normal instructional and assessment processes within the classroom. Students will be aged approximately 8-11 years old and will represent the demographics of their school. We are estimating on average at least 15 students per class per year, with some teachers participating across two or three classes of students, yielding total student participation of approximately 2000-2500 students.

We anticipate that the project will include a total of approximately 20–25 schools in the initial phases of the study. School recruitment will focus on schools that serve large proportions (for their states) of students from populations traditionally underserved in gifted and talented programs, including students from economically disadvantaged backgrounds, students of color, and students who are English learners.

No participants will represent any unusual health circumstances outside what is normally anticipated at an elementary school. A teacher participant would only be removed if requested by the teacher or if the teacher is unable to complete the necessary project components; in the latter case, the IRB will be informed and review the circumstances of removal as appropriate.

Sources of Materials

The study will include multiple sources of data. The following data sources will be collected from teachers, with indication of the phases in which these items will be collected:

- Recorded videos of classroom instruction (Phases 1, 2, 3), to be transcribed, scored using the Instructional Quality Assessment (IQA) rubrics (Matsumara et al. 2006), and analyzed for key linguistic features
- Teacher self-scoring on a version of the IQA for recorded lessons (Phases 2, 3)
- Project-developed self-efficacy measure (Phases 1, 2, 3, 4), to be collected multiple times per teacher to allow assessment of change over time
- Project-developed teacher rating scale for rating student high-potential behaviors linked to participation in questioning and discussion (Phases 1, 2, 3)

The following data sources will be collected from students whose teachers are participating in Phases 2 and 3. All student data will be de-identified and labeled with a code before being shared with the research team.

- Demographic data, including gender, race, ethnicity, English Learner status, gifted identification status, special education status
- State assessment scores in reading and mathematics
- Artifacts from instructional activities using project resources, including completed student journals from *A3* mathematics activities and completed ladders from *Jacob's Ladder*.

In addition, teacher participants will be asked to provide feedback throughout the project on their experiences and their assessment of the professional learning activities.

Recruitment and Informed Consent

The UConn IRB will oversee the human subject aspects of the study. The study protocol and all informational and consent forms will be reviewed and approved by UConn's IRB prior to their dissemination.

Initial recruitment efforts have involved direct communication between the Principal Investigator and administrative personnel in target school districts. Further recruitment of potential schools is expected to continue throughout the summer. School districts invited to the study have been selected based on the combination of a diverse student population and interest in pursuing professional learning activities related to responding to gifted and talented learners. We have invited schools in several states that have different levels of requirements for gifted programming in schools and different patterns of diversity in student and teacher populations. We have also invited nonprofit private schools for participation. Among the districts and schools with whom we have discussed the project to date, four have submitted letters of support: Bloomfield Public Schools, Norwalk Public Schools, and Torrington Public Schools in Connecticut, and the Catholic Academy of Waterbury in Connecticut. Letters of support are in process with additional districts and schools in Connecticut, Virginia, Georgia, and Louisiana.

Following central office agreement, recruitment will then proceed to conversations among the PI, central office, and school principals. School participation will be contingent upon data sharing agreements whereby school districts will agree to share de-identified student data from state assessments with the project. In schools whose principals agree, teachers will then be invited to participate in the different phases of the project as appropriate:

Phase 1: Principals will be asked to identify teachers who engage in extensive classroom questioning and discussion for participation in the observation group in Phase 1. Teachers will be invited to participate based on principal recommendation. Phase 1 will also include recruitment of a wider range of teachers across the country through various methods, including contact lists from the Renzulli Center, social media, and other contacts (to be reviewed by IRB). This

additional recruitment will be for anonymous teacher participation in the piloting of project instruments.

Phase 2: Teachers will be invited to participate in Phase 2 with understanding that the study will require participation of multiple teachers per grade level and that teachers who agree to participate will be randomly assigned to treatment or comparison conditions. All Phase 2 teachers will be asked to begin in the spring of an academic year and to continue through the entire next academic year. Comparison teachers will then have the opportunity to participate for a further year as treatment teachers.

Phase 3: Participants will be drawn from participants in Phases 1 and 2. The research team will identify specific areas for growth around aspects of IQA scores and linguistic features of discussions. Teachers from Phases 1 and 2 will be invited to participate if they wish to pursue further professional learning around these areas for growth through the more intensive professional learning activities of Phase 3.

Phase 4: Another round of recruitment of schools and teachers, including existing partner districts but also additional districts with similar demographics, will occur at the beginning of Phase 4.

We will use a consent form for the teachers involved in the study for the data collection instruments involving teachers. The UConn project team will explain and collect consent forms from teachers during the initial overview meetings related to the project. Teachers who participate in the instrument development activities in Phase 1 will be presented with an information sheet ahead of online surveys. Teachers who will participate in Phase 3 will be asked to complete a second consent form specifically to focus on Phase 3.

We expect to use a parental notification form for students in the study, pending approval from the UConn IRB and from the schools, because the students will be involved in activities that reflect normal educational practices. We will provide notifications to parents about the project, with every effort to ensure that forms are available in the home language of the students. A designated project liaison at each school will collect any forms indicating that parents do not wish their students to be involved. Because the study involves normal educational practices, we will work with the schools to ensure that no students are excluded from educational activities based on non-involvement in the study, and we will not use any data from these students.

Potential Risks

The Project Focus interventions and data collection measures for teachers and students will involve normal educational practices and pose no risk to any of the teachers or students involved. Teachers may feel some discomfort about recording their instruction, having their recordings observed, and/or receiving coach feedback (in Phase 3). Teachers will have the option to discontinue their participation at any time. Teachers may also feel some inconvenience from the expectations to complete the various project assessments and activities. All classroom videos will focus primarily on teachers but will also capture student voices, but no student names will be transcribed. No individual observation data from teachers will be shared with school administrators; group data will be shared only to the degree that individual teacher results cannot be discerned. The schools involved in the project will have made the decision to incorporate the student assessments into their normal practices.

Protection Against Risk

All information collected during this project will be used for research purposes and/or for instructional purposes in collaboration with school personnel. All necessary steps will be taken to

ensure the confidentiality of the data. The project team will assign codes for participant names and ensure that project data is labeled with these codes, and the codebook will be stored in a separate place from the data. All student data will be de-identified, and student names will not be collected or stored by the research team. All data collected will be stored on computers accessible only by our researchers. Any determination to collect video footage for use other than research purposes (i.e., for use in professional learning contexts) will be separately approved and consented among project participants. We will ensure that all participant information is used in ways that are approved by the UConn IRB and any local school district requirements, and that all study procedures are conducted within other relevant guidelines for educational records. All participants will be informed of intended use of the data and of the responsibility of members of the research team as mandated reporters.

Importance of the Knowledge to be Gained

The purpose of this project is to enhance teacher classroom practice around higher-level questioning and discussion in the context of use of gifted-focused instructional materials and to contribute to the research on the outcomes of these approaches to supporting gifted identification and services (Matthews & Peters, 2018; Robinson et al., 2018; Swanson et al., 2019). The project is intended to support teachers in eliciting and recognizing behaviors that indicate advanced academic potential, specifically as they relate to student engagement in higher-level thinking and discussion, and to support teachers in honing and strengthening their instructional skills and self-efficacy. The project will add to existing research on the benefits of using gifted-focused instructional materials with all learners as a way of increasing access to challenging content (Horn et al., 2021; Robinson et al., 2018). The project also advances research on classroom questioning and discussion practices through close quantitative analysis of the linguistic features

that characterize high-quality discussion and attention to how use of these features may change linked to professional learning efforts (O'Connor & Michaels, 2019; Soter et al., 2007; Tausczik & Pennebaker, 2010). The project applies evidence-based research from the broader educational field on approaches to professional learning (Taylor et al., 2017; Vernon-Feagans et al., 2013) and supporting student thinking through questioning and discussion (Baker et al., 2014; Pashler et al., 2007; Woodward et al., 2018) and examines how these elements of professional learning and instructional practice link to key outcomes in gifted and talented education, including identification and services for students from traditionally underserved populations. There are no risks to the participants in the study, and the benefits outweigh any inconvenience of the time spent on study procedures. The study involves normal educational practices for teachers and students and will provide access to advanced learning opportunities for all students, including those who may not be identified and served through traditional assessment methods. All participating teachers will have access to project materials, and teachers and students will be able to continue to benefit from project learning beyond the time of Federal assistance.

Collaborating Site(s)

The research will take place within schools and districts that partner with the project. Thus far, letters of support have been submitted from Bloomfield Public Schools, Norwalk Public Schools, and Torrington Public Schools in Connecticut and from the Catholic Academy of Waterbury in Connecticut. Conversations regarding participation are ongoing with additional schools and districts in Connecticut, Virginia, Georgia, and Louisiana, and recruitment will expand further for Years 4 and 5 of the project. Confirmation of initial school district involvement will be completed in the coming months. Within each district, a local liaison will be identified to assist the research team in implementing the project and coordinating data

collection, as well as working with the research team to ensure that local policies regarding student records (i.e., test results) are followed. We will obtain research agreement/approval from each district, following their local policies, with oversight of the entire project from the UConn IRB.

References

Baker, S., Lesaux, N., Jayanthi, M., Dimino, J., Proctor, C. P., Morris, J., Gersten, R., Haymond, K., Kieffer, M. J., Linan-Thompson, S., & Newman-Gonchar, R. (2014). *Teaching academic content and literacy to English learners in elementary and middle school* (NCEE 2014-4012). Washington, DC: National Center for Education Evaluation and Regional Assistance (NCEE), Institute of Education Sciences, U.S. Department of Education. https://ies.ed.gov/ncee/wwc/Docs/PracticeGuide/english_learners_pg_040114.pdf

Horn, C. V., Little, C. L., Maloney, K. N., & McCullough, C. A. (2021). *Young Scholars Model: A comprehensive approach for developing talent and pursuing equity in gifted education.* Prufrock Press.

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Abstract

An abstract is to be submitted in accordance with the following:

1. Abstract Requirements

- Abstracts must not exceed one page and should use language that will be understood by a range of audiences.
- Abstracts must include the project title, goals, and expected outcomes and contributions related to research, policy, and practice.
- Abstracts must include the population(s) to be served.
- Abstracts must include primary activities to be performed by the recipient.
- Abstracts must include subrecipient activities that are known or specified at the time of application submission.

For research applications, abstracts also include the following:

- Theoretical and conceptual background of the study (i.e., prior research that the investigation builds upon and that provides a compelling rationale for this study).
- Research issues, hypotheses and questions being addressed.
- Study design including a brief description of the sample including sample size, methods, principals, and dependent, independent, and control variables, as well as the approach to data analysis.

[Note: For a non-electronic submission, include the name and address of your organization and the name, phone number and e-mail address of the contact person for this project.]

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* Attachment: 1243-ProjectFocus_Abstract.pdf | Add Attachment | Delete Attachment | View Attachment

Tracking Number:GRANT13593924 Funding Opportunity Number:ED-GRANTS-021622-001 Received Date:Apr 11, 2022 09:42:08 AM EDT

Project Focus: Abstract

Project Focus responds to Javits Program priorities through helping **classroom teachers at grades 3-5** recognize and respond to **gifted learners**, including those who may not be identified with traditional assessments. The project builds on prior work emphasizing the value of engaging all learners with advanced materials to support identification and promotes effective instruction through analysis of features of classroom discussions. It also promotes access to professional learning and encourages participation of teachers from traditionally underrepresented groups.

Project goals are to build teacher capacity and self-efficacy for supporting gifted learners; increase access for all to challenging questioning and discussion; support identification of gifted students from underserved populations; and disseminate resources. **Activities** include professional learning; support for implementing resources; data collection and analysis on qualities of classroom discussions; and recruitment and dissemination to address the needs of a diverse teacher population. The project engages 80 teachers and their students in a study of effects of professional learning and provides follow-up dissemination for at least 150 teachers.

The project responds to the **Absolute Priority** to develop information to assist schools in identifying and serving gifted learners through increasing access to gifted-focused resources and supporting teachers in recognizing high potential. Analysis of discussions will provide new information on how students show potential in response to instruction. The project responds to **Competitive Priority 3** on promoting equity in resources and opportunity by increasing the number of educators from underrepresented groups with background in gifted education and through use of gifted-focused resources with all. **Intended outcomes** include increased numbers of teachers and students from underserved groups with access to project learning; increases in instructional quality; and increased identification for gifted learners from underserved groups.

Project Narrative File(s)

*** Mandatory Project Narrative File Filename:** 1236-ProjectFocus_Narrative.pdf

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Project Focus

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PROJECT FOCUS

Need for the Project

Elementary classroom teachers tend to have limited background in recognizing the needs of gifted learners, particularly those from populations that may not be identified with traditional assessments (McBee et al., 2016; Speirs Neumeister et al., 2007). Yet, these teachers are often asked to refer students for gifted identification (Callahan et al., 2014), and their limited background and perceptions may contribute to underidentification of students from traditionally underrepresented groups (Baudson & Preckel, 2016; McBee et al., 2016). Further, most elementary gifted learners, whether formally identified or not, spend most school time in general education settings (Siegle et al., 2019). Thus, the classroom teacher is the person who determines how to engage these, and all students, in challenging activities and discussions that elicit higher-level thinking – yet classroom questioning and discussion often feature more lower- than higher-level questions and are dominated by teacher talk (Michaels & O'Connor, 2015; Taylor et al., 2003; van der Veen et al., 2017). Also, general education teachers may have limited knowledge and confidence in how to differentiate for gifted learners, including the use of gifted-focused teaching materials (Swanson, 2016). **Thus, increasing classroom teachers' ability to recognize and respond to high potential is a critical aspect of supporting gifted learners in schools.**

The issue of teacher influence on identification and services is compounded by emerging evidence on important effects of teacher diversity. Research suggests that Black and Hispanic students are better represented in gifted programs in schools with higher proportions of Black and Hispanic teachers (Grissom & Redding, 2016), and there is growing evidence of the value for students of color working with same-race teachers (Egalite et al., 2015; Fox, 2016). Yet the teaching force in the US remains overwhelmingly White and female (Ingersoll et al., 2021).

Further, neither gifted teachers, nor teachers of color are equally distributed across schools. These issues indicate a need for more professional learning on gifted identification and services for underrepresented students and a need for teachers who are themselves from underserved populations to have full access to such learning.

Project Focus uses professional learning to increase access to advanced learning for all and to assist schools in providing services for gifted learners, particularly those from traditionally underserved groups. The project employs sustained professional learning on behaviors that indicate a need for gifted services and on strategies that will yield and support these behaviors. A central emphasis is the use of gifted-focused curricular materials and facilitating questioning and discussion using these materials. Using these approaches with all learners provides a context for enhancing higher-level thinking and opportunities for talent spotting, particularly when paired with specific professional learning activities that support teachers in recognizing behaviors that indicate high potential (Little et al., in press; Robinson et al., 2018; Swanson et al., 2019).

Project Focus builds on previous work in gifted education to (a) increase awareness of behaviors that indicate high potential; (b) equip teachers with resources and strategies for supporting higher-level thinking; (c) develop new information about the linguistic features that characterize high-quality questioning and discussion; and (d) disseminate findings to support use of evidence-supported approaches. The project also draws on evidence-based research on using deep questions that elicit explanation and discussion (Pashler et al., 2007); using discussion to help students refine and clarify approaches to problem solving (Rittle-Johnson & Star, 2009; Woodward et al., 2018) and to enhance content-area learning and achievement (Baker et al., 2014); and employing professional learning that includes review of classroom video with individualized coaching (Taylor et al., 2017) (see Evidence Chart).

The project also builds on previous Javits-funded work, conducted by members of the project team, which used the Young Scholars Model (Horn et al., 2021) to encourage early access to gifted-focused materials for all learners. Project SPARK demonstrated a connection from project activities to increased mathematics scores and increased numbers and proportions of students from underserved groups referred and identified for gifted services (Adelson et al., 2022; Kearney et al., 2019; Little et al., 2018). In Project LIFT, professional learning and use of advanced instructional materials were linked to increased teacher recognition of high-potential behaviors in diverse learners (Kearney et al., 2021) and to increases in practices supporting higher-level thinking, particularly elements of questioning and discourse (Little et al., 2022).

Project Design

Project Focus will enhance professional learning about behaviors indicating high potential, specific resources focused on the needs of gifted learners, and the facilitation of questioning and discussion. We aim to increase instructional behaviors that encourage higher-level thinking, particularly in learning contexts that serve large numbers of students from typically underserved populations. We will work with participating districts to invite and support teachers, including teachers who come from underserved populations and communities, in engaging with the project's professional learning and providing ongoing feedback that will support continuous improvement of project services and classroom applications.

Project Goals, Objectives, and Outcomes

GOAL 1: To build teacher capacity and self-efficacy for recognizing and responding to advanced learners through enhanced classroom questioning and discussion.

- Objective 1. To support increased quality in observed classroom instruction with focus on questioning and discussion.

- At least 70% of treatment teachers will show increases in Instructional Quality Assessment (IQA) scores from baseline to post-professional learning on observed items with focus on (a) accountable talk and (b) academic rigor.

- Objective 2. To support increases in teacher self-efficacy and self-report ratings related to classroom questioning and discussion.
  - At least 50% of treatment teachers will show increases in scores from baseline to post-classroom implementation on (a) self-efficacy and (b) IQA self-ratings.
- Objective 3. To support increases in teacher recognition of student high-potential behaviors, particularly for students from traditionally underserved populations.
  - At least 50% of teachers in the treatment group will show increases in mean ratings of their students (overall) and their students from traditionally underserved populations on a rating scale focused on student high-potential behaviors.
- Objective 4. To demonstrate increased numbers of teachers with training and experience in recognizing and responding to gifted learners through enhanced classroom questioning and discourse, with focus on schools with large numbers of students from underserved groups.
  - Participation in project professional learning activities: at least 50 teachers in Y1, 60 in Y2, 65 in Y3, 100 in Y4, 75 in Y5; with at least 30-40% participation of teachers from underrepresented populations or from the communities they serve; plus at least 70 participants per year after Year 1 in project-related conference sessions.

GOAL 2: To increase access to challenging curriculum and instruction emphasizing classroom questioning and discourse for students from traditionally underserved populations.

- Objective 5. To increase numbers of students overall and those from traditionally underserved populations in learning with gifted-focused materials.

- Participation with *A*^{3} and *Jacob's Ladder* materials for at least 15 students per treatment teacher per year in Years 2-4 (300 in Y2, 600 in Y3, 375 in Y4); participation from an average of at least 10 students from underserved groups per class per year.

- Objective 6. To increase engagement in questioning and discussion as indicated by increased scores on student-related elements of IQA and proportion of student versus teacher talk time.
  - At least 70% of treatment classrooms will show increases in (a) scores on instructional quality items focused on student action (e.g., student linking) and (b) proportion of student versus teacher talk time and the length of exchanges following an initial question.
- Objective 7. To demonstrate student achievement linked to engagement with gifted-focused resources and instruction emphasizing classroom questioning and discussion.
  - At least 40% of students in treatment classrooms will show scores of at least 3 (of 4) on rubric elements on artifacts produced during implementation of project resources and at least 50% will show increased ratings over time on the project teacher rating scale.
  - At least 80% of students in treatment classrooms will show increased scores on state assessments in reading and mathematics.

GOAL 3: To support identification of gifted students and recognition of high potential behaviors, particularly in students from traditionally underserved populations.

- Objective 8. To increase student scores on a teacher rating scale focused on observing behaviors indicative of advanced potential.
  - At least 50% of students in treatment classrooms will show increased ratings over time.
- Objective 9. To increase scores for students from traditionally underserved populations on a teacher rating scale focused on observing behaviors indicative of advanced potential.
  - At least 50% of students in treatment classrooms from traditionally underserved

populations will show increased ratings over time.

- Objective 10. To support increased identification of students from traditionally underserved populations for their local gifted programs, as evidenced by increased likelihood of referrals from classroom teachers and school district data on identification.
  - At least 50% of schools with participating teachers will show (a) increased numbers of students identified for gifted services and (b) increased proportions of students from underserved populations identified for gifted services during the project.
  - At least 50% of teachers in the treatment group will indicate on a rating scale the likelihood that they would refer at least 3 students who are (a) from traditionally underserved populations and (b) not already identified for gifted services.

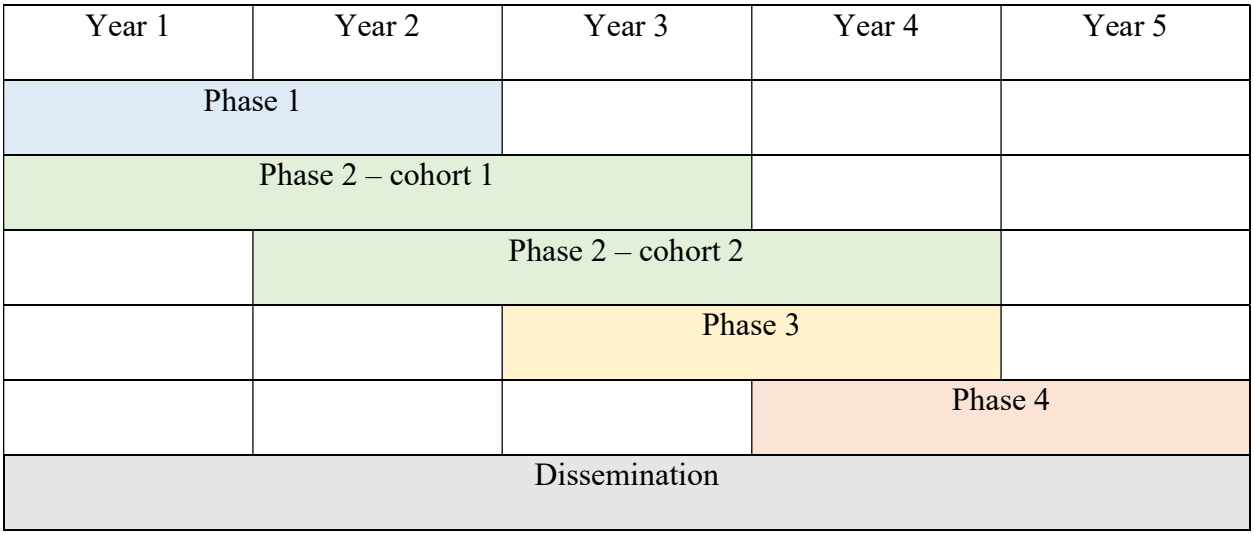
GOAL 4: To disseminate project resources to enhance professional learning and replication.

- Objective 11. To increase the number of teachers with access to resources and professional learning on identifying and serving gifted learners, including those from underserved groups.
  - At least 240 unique teacher participants (50 in Y1, 60 in Y2, 65 in Y3, 100 in Y4, 75 in Y5) will participate in professional learning and receive project resources.
- Objective 12. To disseminate project activities and findings through presentations and publications for various formats and audiences, including researchers and practitioners.
  - At least 2 conference sessions will be given in Year 2 and 3-4 per year in Years 3-5.
  - At least 2 self-published products (blog posts, video) will be completed per year.
  - At least 4 manuscripts will be submitted or published per year after Year 2.

Project Activities

Project Focus is organized into four overlapping phases (Figure 1). Each phase supports project goals and includes professional learning, classroom data collection, and dissemination.

Figure 1. Project Phases



Phase 1: Instrument Development and Characterization of Linguistic Features

In Phase 1, the project will develop two instruments and a system for characterizing linguistic features of high-quality classroom questioning and discussion.

- **Self-efficacy linked to project emphases.** We will develop, pilot, and refine a self-efficacy instrument with factors related to (a) recognizing behaviors that indicate high potential and (b) facilitating questioning and discussion. This instrument will be built on elements of the Teacher Self-Efficacy Scale (Tschannen-Moran & Woolfolk-Hoy, 2001), with additional items specifically tied to project goals (Wyatt, 2018).
- **Teacher rating of student behaviors**. We will develop, pilot, and refine a rating scale to document teacher observation of behaviors that indicate high potential, with focus on higher-level thinking in discussion and response to project resources. The instrument will draw on prior work on behaviors indicating high potential in diverse populations (Harradine et al., 2014; Horn et al., 2021). Teachers will rate engagement and behaviors indicating higher-level thinking, including making connections, explaining reasoning, and using evidence.
- **Characterization of high-quality discussion and teacher questioning.** We will collect

recordings of discussions during lessons using gifted-focused materials. Transcripts will be scored using the Instructional Quality Assessment (IQA) Rubrics (Matsumara et al., 2006) on items addressing accountable talk and academic rigor and grouped as high- or low-to-moderate quality. We will then examine the transcripts to label, quantify, and describe the linguistic features of high-quality discussions, including average number of turns, proportion of students engaged, number of teacher questions, average length of exchange following a teacher question, and number of reasoning words used (e.g., *how, think, why, agree/disagree, would/could*; Anglin et al., 2021; Soter et al., 2008; Tausczik & Pennebaker, 2010).

Phase 1 will occur primarily during Year 1 and will involve the engagement of 10 teachers (observation group) for lesson recordings and a larger number of teachers invited to participate anonymously in the piloting of the two instruments. Further instrument refinement will continue into Year 2, and components of Phase 1 will inform research and dissemination throughout the project (e.g., use of linguistic features coding; presentations/publications on instrument findings).

Phase 2: Study of Effects of Professional Learning

Phase 2 will begin in Year 1 and continue until Year 4, with 80 teachers across two cohorts in a quasi-experimental study of outcomes linked to professional learning and use of project-provided resources in reading (*Jacob's Ladder;* VanTassel-Baska & Stambaugh, 2009) and mathematics (*Awesome Advanced Activities* [A^3]; Gavin et al., 2021). We will work with schools serving large numbers of students from underserved groups, including those from economically disadvantaged backgrounds, English learners, and those who are twice exceptional. We will work with administrators to encourage participation from teachers from underserved groups.

In each cohort, teachers at grades 3-5 will be invited to participate, with an understanding that they would be agreeing to participate in the treatment (T) *or* comparison (C) group, with

random assignment of teachers within grade levels at the same school. Cohort 1 (n=40) will begin in Year 1 and continue through Year 2, and those initially in the comparison group may opt to become treatment teachers for Year 3. Cohort 2 (n=40) will begin in Year 2 and continue through Year 3 following the same pattern. Cohorts will complete the following activities:

- **Baseline data collection (T&C):** (a) Recordings of 1-2 reading lessons and 1-2 mathematics lessons with questioning and discussion components; (b) Completion of self-efficacy scale.
- **Summer professional learning (T):** Summer workshop on (a) student behaviors indicating high potential, (b) guidance for using gifted-focused resources (specifically *A*^{3} and *Jacob's Ladder*), and (c) elements and strategies for questioning and discussion to support higher-level thinking. Teachers will complete the self-efficacy instrument again after the workshop.
- **School year implementation (T&C):** Recordings (T) of 4 reading/ language arts lessons and 4 mathematics lessons, with at least half on project-provided materials. Recordings (C) of the same number of lessons. All teachers will rate themselves using IQA items on several lessons and complete the self-efficacy scale and the teacher rating scale three times during the year.
- **Collection of student data (T&C):** Project staff will work with participating districts to collect de-identified data on student demographics, achievement scores on state assessments, gifted program identification status, and (T only) student artifacts from project resources.
- **School year professional learning (T):** Ongoing professional learning through using project resources and participating in online discussions on a shared text about classroom discussion.
- **Summer professional learning (T&C):** Summer workshops; debriefing and reflection (T), full workshop for comparison teachers.
- **School year implementation (C):** The comparison (now delayed treatment) group will engage in all the treatment activities noted above in their second full year of participation.

Resources will include materials developed by gifted education experts for use in multiple settings, including to support advanced learning in the regular classroom and to provide scaffolding for more learners to access challenging content. Teachers will engage in professional learning about these resources and implement them in their classrooms. Using the guidance within the resources, teachers will conduct some activities in small groups and some in larger groups, with consistent modeling and facilitation of discussion. They will use the materials with all learners to support broad access, higher-level thinking, content learning, and talent spotting.

Awesome Advanced Activities (A^3). The *Awesome Advanced Activities (A^3)* series (Gavin et al., 2021) was created by the team who developed *Project M^3: Mentoring Mathematical Minds*, which showed positive effects on student achievement (Gavin et al., 2009). The series is a supplementary resource for elementary classrooms in mathematics and reflects M^3's emphases on engaging students as practicing mathematicians, encouraging reasoning in discussion and writing, and deepening content understanding. Activities include strong focus on discussion and writing. Artifacts will include student responses in a Mathematician's Journal.

Jacob's Ladder. *Jacob's Ladder* was developed as part of a Javits-sponsored project in the mid-2000s to scaffold students' reading comprehension and higher-level thinking in response to challenging texts (VanTassel-Baska & Stambaugh, 2009), with study results demonstrating significant gains in critical thinking and reading (Stambaugh, 2007). The books use a set of "ladders" with questions that move students from lower- to higher-level thinking through application to specific texts. *Jacob's Ladder* has been used extensively and effectively in regular classroom settings and in gifted programs (Swanson et al., 2019) and also incorporates a strong focus on discussion. Artifacts will include written responses to selected ladder questions.

These resources provide a context for professional learning on questioning and discussion.

The project team will engage teachers in learning about facilitating higher-level thinking through questioning, "talk moves," and using feedback (Chapin et al., 2009; O'Connor & Michaels, 2019; Soter et al., 2008). Teachers will apply the resources and overall strategies for facilitating questioning and discussion in the lessons they record for the project.

Phase 3: Study of Individualized Professional Learning

Phase 3 will begin in Year 3 and continue through Year 4. We will examine the effects of individualized professional learning (IPL), with coach feedback, on questioning and discussion outcomes. We will identify areas for teacher growth based on findings on key linguistic features characterizing high-quality questioning and discussion. For example, we may identify a need to increase use of reasoning words or number of student turns of talk following an initial question.

Teachers from Cohorts 1 and 2 will be invited to extend into Phase 3 to pursue further growth with individualized feedback. Coaches will be identified from the observation group or Cohort 1 or 2 based on evidence of high-quality discussions. IPL participants will be matched with coaches and will record lessons to be quickly transcribed and reviewed by the project team and IPL coach, and the coach will provide feedback and support around the linguistic features identified for focus. Using a multiple baseline design with 3 teacher-coach pairs in Year 3 and 5 pairs in Year 4, we will track data to determine changes in practice in connection with coaching and specific feedback (Simonsen & Little, 2011). Thus, teachers serve as their own controls, and progress is tracked on specific elements throughout the coaching intervention.

Phase 4: Scaling Up Professional Learning Activities

Phase 4 supports increased access to professional learning for a larger participant group. Findings and evaluation feedback will inform refinement and planning, including engaging project teachers in sharing their experiences. We will work with districts to recruit teachers, with

specific encouragement for teachers from traditionally underserved groups and those who come from the communities they serve. We will invite school-based teams to promote collaboration. We will invite teachers from nonprofit schools, particularly those that serve large numbers of students from underserved groups. Teachers who participate will complete the project self-efficacy scale before and after the summer workshop and again during the following school year.

We will engage 75 teachers in Year 4 and 75 in Year 5 in professional learning activities at multiple locations in or near participating districts. Teachers who participate in Phase 4 will also receive *A*^{3} and *Jacob's Ladder* materials. Those who participate in Year 4 will continue activities into Year 5, including online discussions on a shared text. We will also share plans and resources on these activities with schools participating in Year 5 summer learning, encouraging those schools to implement follow-up learning themselves beyond the end date of the project.

Dissemination

We will focus on dissemination to ensure broad sharing of findings and resources. Efforts will include development of a project website and focus on conference presentations, manuscript preparation, and other resources such as webinars and blog posts for a variety of audiences.

Response to Application Requirements

Project Focus enhances the capacity of schools to recognize and develop advanced academic potential through research and support for teacher learning about identifying and serving gifted and talented students, especially those who may not be identified through traditional assessment methods. This effort responds to the **Absolute Priority** to develop new information to assist schools in identifying and serving these learners. The project emphasizes using gifted-focused curricular resources with all learners, thus increasing access and enhancing teacher ability to see how students from diverse backgrounds respond to challenging tasks. Such use of curriculum for

talent spotting is supported in the literature to increase equity in identification (Matthews & Peters, 2018; Robinson et al., 2018; Swanson et al., 2019). Further, the analysis of discussion exchanges that emerge from application of such curriculum will provide new information on how students show potential in the context of responding to those resources and discussions. This information will contribute to schools' ability to support identification and service delivery.

The project engages teacher participation from schools that serve large numbers of learners from traditionally underserved groups (e.g., English learners, students from economically disadvantaged backgrounds) and incorporates professional learning content that addresses recognizing and responding to the needs of these learners and others who may not be identified and served through traditional assessment methods (e.g., students with disabilities).

Project Focus also responds to **Competitive Priority 3(2)** by promoting educational equity and adequacy in resources and opportunity, specifically by addressing **emphasis 2ii** to increase the number and proportion of educators from underrepresented groups or the communities they serve who have professional expertise in recognizing and responding to gifted students. We will partner with schools to recruit teachers from diverse backgrounds, complying with applicable law, in increasing numbers throughout the project. We also respond to **Competitive Priority 3 (2.i.F)** through the use of gifted-focused resources in mathematics with all learners.

Project Focus includes specific plans for evaluation, including data collection to explore evidence of the effects of project activities and feedback from participants, with ongoing refinement based on evaluation data. The four phases will allow us to incorporate evaluation evidence from earlier stages into later stages to enhance project services.

Research Questions and Research Plan

1. How does participation in Project Focus change observed and self-perceived components of

instructional quality, specifically accountable talk and academic rigor?

2. How does participation in Project Focus change teacher self-efficacy beliefs around facilitating questioning and discussion and recognizing evidence of high potential?
3. How does teacher participation in Project Focus change ratings of student behaviors indicating high academic potential?
    a. How do teacher ratings of student behaviors relate to evidence of student achievement on project artifacts and achievement test scores?
4. How may high-quality discussions be characterized using quantitative linguistic features?
    a. To what extent does participation in Project Focus change the linguistic features of classroom discussions?

Research and Evaluation Plan

Project activities include evaluation efforts to ensure that the project is addressing its goals and research efforts on the questions above. Evaluation activities will include quarterly reviews by the senior team to document progress toward goals and a detailed plan to gather and use participant feedback in each phase. The research design will allow us to assess the effects of activities and to increase understanding of important linguistic features of discussion.

To address Research Question 1, we will use the Instructional Quality Assessment (IQA) rubrics (Matsumara et al., 2006) for Accountable Talk and Academic Rigor in observations of recorded instruction. Trained observers will score recorded lessons using the IQA rubrics, with at least two raters per lesson and review of interrater reliability. Teachers will also self-rate some of their lessons. In Phase 2, teachers will record 2 lessons each as a baseline measure and 6-8 lessons across the following year. In Phase 3, IPL teachers will record 2-3 lessons (for the pilot) and 6-8 lessons (for full implementation) and engage in follow-up discussions with coaches.

We will examine IQA scores at baseline and after professional learning to determine change over time, with attention to the level of engagement in professional learning (i.e., Phase 2 vs. Phase 3), and compare scores of treatment and comparison teachers. We expect treatment teachers to show larger increases in scores from baseline to after professional learning compared to comparison teacher scores. We will examine teacher self-ratings and compare them to observer ratings and compare teacher ratings of their own lessons over time to assess changes.

To address Research Question 2, in Phase 1, we will pilot a scale that captures self-efficacy beliefs for general instruction, responding to students with high potential behaviors, and using questioning and discussion. This scale builds on prior work on the Teacher Self-Efficacy Scale (Tschannen-Moran & Woolfolk-Hoy, 2001), with additional items linked to project goals (Wyatt, 2018). In Phase 2, we will give this scale at baseline, after the summer, and several times during the year. In Phase 3, we will give it before at least 3 lessons, after the teacher-coach meeting for each lesson, and at the end of the year. In Phase 4, we will give the scale upon enrollment, after summer professional learning, and twice during the year. We will compare responses (a) from baseline to subsequent responses; (b) between treatment and comparison; (c) from post-workshop to post-lessons in Phases 2 and 3; and (d) across Phases 2, 3, and 4 to determine how engagement in professional learning is related to self-efficacy changes. We expect treatment teachers to show larger increases than comparison teachers and that responses after observed lessons will show increased self-efficacy over time. Comparing responses will help us identify patterns of change in self-efficacy and professional learning implications.

To address Research Question 3, in Phase 1, we will develop and pilot a teacher rating scale that asks teachers to rate their students on aspects of higher-level thinking and high-potential behaviors shown during questioning and discussion. This scale will be informed by the Teacher's

Observation of Potential in Students (TOPS; Harradine et al., 2014) and similar resources for observing high-potential behaviors, but with specific focus on engagement in higher-level thinking and discussion. In Phases 2 and 3, teachers will complete this scale on students three times. We will compare changes in scores over time at the student level and class level. We will also collect student achievement scores on state assessments and artifacts from project resources (i.e., *A*^{3} and *Jacob's Ladder*), including at least three artifacts per student (e.g., mathematician's journal responses, completed ladders). Trained team members will score artifacts using rubrics provided. We will examine relationships among achievement, artifact scores, and teacher ratings to assess change and how teacher ratings reflect other evidence of student achievement.

To address Research Question 4, beginning in Phase 1, we will record and transcribe classroom interactions. We will analyze the transcripts using a set of linguistic characteristics designed to capture micro-level information on the quality of teacher questioning and discussion (Anglin et al., 2021). Specifically, we will observe (a) number/length of student turns of talk as an indicator of student involvement (Soter et al., 2008); (b) proportion of students in discussion as an indicator of inclusiveness; (c) average length of exchanges after an initial teacher question (measured by time/number of student turns of talk) as an indicator of the extent to which a discussion has moved beyond the Initiation-Response-Evaluation format that typically follows low-level questioning (O'Connor & Michaels, 2019); and (d) density of reasoning words in teacher questions. In this fourth outcome, we will rely on psychometrically validated dictionaries (Tausczik & Pennebaker, 2010) and prior qualitative and linguistic studies to identify words that indicate higher-level questioning by the teacher (Soter et al., 2008; Wegerif & Mercer, 1997).

In Phase 1, we will group transcripts using the IQA as low/moderate or high quality and identify the characteristics most capable of distinguishing between groups. We will then use the

identified characteristics to inform professional learning in Phases 2 and 3. For example, if we find that high-quality discussions yield four to five turns of talk after a prompt, while low-quality discussions yield one, teachers can use this finding to assess and improve their discussions. We expect treatment teachers to show larger increases than comparison teachers in such indicators.

Management Plan

Project Focus will be implemented in four phases over the 5-year period. Each teacher's participation will occur over a span of about 1–2 years. Staggered entry and exit of teachers support greater power for the research while ensuring efficient use of funds. From a recruitment perspective, the approach requires a relatively short time commitment from schools and teachers, which is more desirable in a time of extensive demand on schools and may limit attrition. Further, the approach allows refinement of activities based on emerging data.

The table below outlines major activities by year and by phase. Coordination and ongoing evaluation of project activities will be managed through regular meetings of the team at UConn and monthly or quarterly communication with project consultants as appropriate to their role. We will ensure regular communication with school administrators and participating teachers.

Year 1 (2022–2023): Phases 1 & 2, Dissemination		
Year 1 Phase 1		
Tasks	**Outcomes/Milestones**	**Timeframe/Responsibility** [1]
Obtain IRB approval for project research activities	UConn/school district IRB approvals obtained	10/2022–11/2022; CL, KA, KK

[1] CL = C. Little; KA = K. Anglin; KK = K. Kearney; SV = S.Vahidi; LC1 = Lead Consultant 1; LC2 = Lead Consultant 2; CT = Consultant Team; GAs = Graduate Assistants

Recruit/consent observation group participation	10 teachers agree to participate	10/2022–12/2022; CL, KK
Collection of observation group lesson recordings	Completion of 3-4 lessons per teacher (total 30-40 lessons)	11/2022–3/2023; KK, GAs
Training of GA team for lesson coding	Achievement of 90%+ coding agreement in practice	10/2022–1/2023; CL, KA, KK
Transcribing and coding of observation group lessons	Completion of coding for analysis of linguistic features	11/2022–8/2023; GAs, supervised by KA, KK
Draft, pilot, and revision of self-efficacy and teacher rating instruments	Draft completed and piloted; revision of instrument based on pilot data analysis	10/2022–6/2023; CL; LC1
Year 1 Phase 2		
Tasks	**Outcomes/Milestones**	**Timeframe/Responsibility**
Recruitment/consent at project schools	Recruitment of 40 teachers for Cohort 1	10/2022–2/2023; CL, KK
Baseline data collection: Cohort 1 lessons, self-efficacy	Completion of baseline data collection for 40 teachers	2/2023–6/2023; CL, KK
Transcribing and coding of Cohort 1 baseline lessons	Progress on lesson coding during summer 2023	3/2023–9/2023; GAs, supervised by KA, KK
Planning/implementation of workshops: agenda on goals/ procedures, data collection	Completion of Cohort 1 summer workshop, positive feedback	4/2023–7/2023; CL, KK; CT; LC2

Evaluation of progress and feedback	Plan for informed revisions of procedures/materials based on feedback on Y1 activities	Ongoing and 8/2023–9/2023: KK; LC2
Year 1 Project Dissemination		
Tasks	**Outcomes/Milestones**	**Timeframe/Responsibility**
Development of website	Launch of website by 4/2023	10/2022–4/2023; CL, KK, SV
Submission of proposals for conference presentations	Submission of at least 2 conference proposals	12/2022–7/2023; CL, KA, KK; LC1; LC2
Year 2 (2023–2024): Phases 1 & 2, Dissemination		
Year 2 Phase 1		
Tasks	**Outcomes/Milestones**	**Timeframe/Responsibility**
Refine self-efficacy and teacher rating instruments	Instrument further updated based on pilot data	10/2023–3/2024; CL; LC1
Additional GA training for utterance-level coding	Achievement of 90%+ agreement on coding	10/2023–12/2023; CL, KA, KK
Utterance-level coding and analysis of lesson transcripts from observation group	Completion of additional coding for all observation lessons for further analysis	10/2023–6/2024; GAs, supervised by KA, KK
Year 2 Phase 2		
Tasks	**Outcomes/Milestones**	**Timeframe/Responsibility**
Data collection with Cohort 1 teachers: self-efficacy, rating scale, lessons, student	Completion of all data collection components from all 40 Cohort 1 teachers	10/2023–6/2024; KK, GAs

artifacts, district data		
Transcribing and coding of lessons from Cohort 1	Completion of transcription/ coding for Cohort 1 baseline lessons and Y2 lessons	10/2023–8/2024; GAs, supervised by KA, KK
School year workshops: Cohort 1 treatment in groups	Completion of workshops with Cohort 1 treatment	10/2023–6/2024; CL, KK; LC2
Recruitment/consent at project schools	Recruitment of 40 teachers for Cohort 2	10/2023–2/2024; CL, KK
Collection of Cohort 2 baseline lessons, self-efficacy	Completion of baseline data collection for 40 teachers	2/2024–6/2024; KK, GAs
Planning/implementing summer workshops: agenda reflecting goals/evaluation data; collection of feedback	Summer workshop (Cohort 2 treatment/continuing Cohort 1) and debriefing with Y2 implementation group; positive feedback	4/2024–7/2024; CL, KK; CT; LC2
Evaluation of progress and feedback	Plan for informed revisions of procedures/materials	Ongoing and 8/2024–9/2024: KK; LC2
Ongoing data analysis with instruments, district data, student artifacts	Initial analysis of results for each research question	10/2023–9/2024; CL, KA, KK; LC1; LC2
Year 2 Project Dissemination		
Tasks	**Outcomes/Milestones**	**Timeframe/Responsibility**
Maintenance of website	Ongoing review and updates	10/2023–9/2024; KK, SV

Conference presentations and additional proposal submissions	Presentation of at least 1-2 conference sessions; submission of 3-6 proposals	10/2023–8/2024; CL, KA, KK; LC1; LC2
Year 3 (2024–2025): Phases 2 & 3, Dissemination		
Year 3 Phase 2		
Tasks	**Outcomes/Milestones**	**Timeframe/Responsibility**
Data collection with continuing Cohort 1 and all Cohort 2 teachers: self-efficacy, rating scale, lessons, student artifacts, district data	Completion of all data collection components from continuing Cohort 1 teachers and all Cohort 2 teachers	10/2024–6/2025; KK, GAs
School year workshops with continuing Cohort 1 teachers, Cohort 2 treatment teachers	Completion of 4 workshops with all Y3 teachers	10/2024–6/2025; CL, KK; LC2
Transcribing and coding of lessons from Cohorts 1 and 2	Ongoing transcription/coding of baseline/additional data	10/2024–9/2025; GAs, supervised by KA, KK
Additional GA training/ consistency checking	Achievement of 90%+ agreement on coding	10/2024–12/2024; CL, KA, KK
Utterance-level coding and analysis of lesson transcripts from Cohort 1	Completion of additional coding for Cohort 1 lessons for further analysis	10/2024–9/2025; GAs, supervised KA, KK
Planning/implementing workshops: agenda reflecting	Summer workshop (Cohort 2 comparison) and debriefing	4/2025–7/2025; CL, KK; CT; LC2

goals/evaluation data; collection of feedback	with Y3 implementation group; positive feedback	
Evaluation of progress and feedback	Plan for informed revisions of procedures/materials based on feedback on Y3 activities	Ongoing and 8/2025–9/2025; KK; LC2
Ongoing data analysis with instruments, district data, student artifacts	Ongoing analysis of results for each research question	10/2024–9/2025; CL, KA, KK; LC1; LC2
Year 3 Phase 3		
Tasks	**Outcomes/Milestones**	**Timeframe/Responsibility**
Selection/recruitment for pilot of individualized professional learning (IPL)	Identification and consent of 3 teachers and 3 coaches for piloting of IPL	10/2024–12/2024; CL, KA, KK
Piloting of IPL, including collection of 3-4 lessons with coach feedback	Completion of pilot with development of management plan to ensure rapid feedback	1/2025–6/2025; CL, KA, KK
Selection/recruitment of participants for Y4 IPL based on Cohort 1-2 data	Identification and consent of 5 teachers and 5 coaches for IPL for Y4	4/2025–6/2025; CL, KK
Analysis of pilot data	Completion of analysis of pilot data with planning for implications for Y4 group	4/2025–9/2025; CL, KA, KK
Planning/implementing	Completed IPL meetings with	4/2025–7/2025; CL, KK; CT;

meetings/feedback: agenda on IPL processes	pilot and Y4 group; positive feedback	LC2
Evaluation of progress and feedback	Plan for informed revisions of Phase 3 procedures/materials	Ongoing and 8/2025–9/2025: KK; LC2
Year 3 Project Dissemination		
Tasks	**Outcomes/Milestones**	**Timeframe/Responsibility**
Maintenance of website	Ongoing review and updates	10/2024–9/2025; KK, SV
Conference presentations and additional proposal submissions	Presentation of at least 3-4 conference sessions; submission of 3-6 proposals	10/2024–8/2025; CL, KA, KK; LC1; LC2
Submission of manuscripts related to project activities	Submission of at least 4 manuscripts	10/2024–9/2025; 1 per quarter; Writing Teams
Development of brief project overview video to facilitate dissemination/recruitment	Completion of video to be ready for dissemination before Y4 begins	1/2025–8/2025; CL, KK, SV
Year 4 (2025–2026): Phases 2, 3, & 4, Dissemination		
Year 4 Phase 2		
Tasks	**Outcomes/Milestones**	**Timeframe/Responsibility**
Data collection with Cohort 2 teachers: self-efficacy, rating scale, lessons, student artifacts, district data	Completion of all data collection components from continuing Cohort 2 teachers	10/2025–6/2026; KK, GAs
School-year professional	4 online workshops complete	10/2025–6/2026; CL, KK;

learning workshops with Cohort 2 in small groups	with all remaining Cohort 2 teachers; positive feedback	LC2
Transcribing and coding of lessons from Cohorts 1 and 2	Ongoing transcription and coding throughout Y4	10/2025–8/2026; GAs, supervised by KA, KK
Additional GA training/ consistency checking	Achievement of 90%+ agreement on coding	10/2025–12/2025; CL, KA, KK
Utterance-level coding and analysis of lesson transcripts from Cohorts 1 and 2	Completion of additional coding for Cohort 1 and 2 lessons for further analysis	10/2025–9/2026; GAs, supervised by KA, KK
Planning and implementing Cohort 2 summer debriefing (informed by evaluation data)	Summer debriefing completed; positive feedback	4/2026–7/2026; CL, KK; CT; LC2
Evaluation of progress and feedback	Plan for informed revisions of procedures/materials	Ongoing and 8/2026–9/2026; KK; LC2
Ongoing data analysis with instruments, district data, student artifacts	Ongoing analysis of results for each research question within and across cohorts	10/2025–9/2026; CL, KA, KK; LC1; LC2
Year 4 Phase 3		
Tasks	**Outcomes/Milestones**	**Timeframe/Responsibility**
Individualized professional learning (IPL); transcription of 3-4 lessons per participant with coach feedback	Completion of implementation with monitoring of management plan to ensure rapid feedback	10/2025–6/2026; CL, KA, KK

Planning/implementation of summer IPL: agenda reflecting goals/evaluation data; collection of feedback	Completed IPL meetings; positive feedback	4/2026–7/2026; CL, KK; CT; LC2
Analysis of IPL data	Initial analysis of data from Y4 implementation	6/2026–9/2026; CL, KA, KK; LC1; LC2
Year 4 Phase 4		
Tasks	**Outcomes/Milestones**	**Timeframe/Responsibility**
Recruitment sessions for potential participants in summer professional learning	Recruitment of 75 summer participants (including from private nonprofit schools)	10/2025–4/2026; CL, KK
Planning/implementing workshops: 3-4 sites, agenda reflecting goals/evaluation data; collection of feedback	Full implementation of workshops for 75 teachers; positive feedback	2/2026–7/2026; (sites/dates confirmed by 4/2026); CL, KK; CT; LC2
Collection of pre-post self-efficacy data	Responses from at least 75-80% of summer participants	6/2026–7/2026; CL, KK; LC1
Evaluation of progress and feedback	Plan for informed revisions of Phase 4 procedures/materials	Ongoing and 8/2026–9/2026: KK; LC2
Year 4 Project Dissemination		
Tasks	**Outcomes/Milestones**	**Timeframe/Responsibility**
Maintenance of website	Ongoing review and updates	10/2025–9/2026; KK, SV
Conference presentations and	Presentation of at least 3-4	10/2025–9/2026;

additional proposal submissions	conference sessions; submission of 3-6 proposals	CL, KA, KK; LC1; LC2
Submission of manuscripts related to project activities	Submission of at least 4 manuscripts	10/2025–9/2026; 1 per quarter; Writing Teams
Year 5 (2026–2027): Phase 4, Analysis/Dissemination Linked to All Other Project Phases		
Year 5 Analysis for Phases 1-3		
Tasks	**Outcomes/Milestones**	**Timeframe/Responsibility**
Continued coding of lessons from all participants	Ongoing coding of transcripts overall and utterance-level	10/2026–1/2027; GAs, supervised by KA, KK
Additional GA training/ consistency checking	Achievement of 90%+ agreement on coding	10/2026–12/2026; CL, KA, KK
Ongoing data analysis with instruments, district data, student artifacts	Ongoing analysis of results for each research question within and across cohorts	10/2026–9/2027; CL, KA, KK; LC1; LC2
Year 5 Phase 4		
Tasks	**Outcomes/Milestones**	**Timeframe/Responsibility**
Follow-up communication with Y4 participants (meetings, data collection)	Follow-up participation from at least 40-50% of Y4 summer learning participants	10/2026–5/2027; CL, KK
Recruitment sessions for potential participants in summer professional learning	Recruitment of 75 summer participants (including from private nonprofit schools)	10/2026–4/2027; CL, KK
Planning/implementing	Full implementation of	2/2027–7/2027; (sites

workshops: 3-4 sites, agenda reflecting goals/evaluation data; collection of feedback	workshops for 75 teachers; positive feedback	confirmed by 4/2027); CL, KK; CT; LC2
Collection of pre-post self-efficacy data	Responses from at least 75-80% of summer participants	6/2027–7/2027; CL, KK; LC1
Year 5 Project Dissemination		
Tasks	**Outcomes/Milestones**	**Timeframe/Responsibility**
Maintenance of website	Ongoing review and updates	10/2026–9/2027; KK, SV
Conference presentations and additional proposal submissions	Presentation of at least 3-4 conference sessions; submission of 3-6 proposals	10/2026–9/2027; CL, KA, KK; LC1; LC2
Submission of manuscripts related to project activities	Submission of at least 4 manuscripts	10/2026–9/2027, 1 per quarter; Writing Teams
Development of book proposal on major findings around linguistic features	Submission/acceptance of proposal; initial manuscript draft prior to end of project	1/2027–9/2027 (proposal 3/2027); Writing Teams

Summary of Project Services and Intended Impact

Through attention to the goals and objectives, fidelity to the management plan, and efficient resource use, Project Focus expands access to professional learning for all teachers on identifying and serving the needs of gifted learners, including those from typically underserved groups. Thus, it also expands access to identification and services for a greater number of gifted students. The project invites teachers at grade levels in which gifted services often begin (3–5) to

develop understanding of gifted students' needs and enhance practice around higher-level thinking through questioning and discussion. The project equips teachers with gifted-focused resources to make them accessible to all. Through these influences on professional learning, we will enhance services for hundreds of students in our teachers' present and future classrooms.

The professional growth experienced by Project Focus teachers will continue to enhance classroom practice and provide valuable learning experiences for students well beyond the period of Federal assistance. Project findings will also inform program planning and decision-making around services for gifted and talented learners and professional preparation of educators, especially findings regarding the (a) specific linguistic features that characterize high-quality questioning and discussion; (b) effects on classroom practice of targeted professional learning around these features; and (c) influence of these types of professional learning on student outcomes relative to engagement, achievement, and identification for gifted programs.

Project Personnel

Senior Personnel

Dr. Catherine Little will serve as Principal Investigator and Project Director. She is a Professor of Giftedness, Creativity, and Talent Development in Educational Psychology at the University of Connecticut. She will oversee the project, coordinating activities in support of objectives, managing the budget and timeline, and supervising the team. She has worked on several Javits grants, directing Projects SPARK (2014) and LIFT (2017) and serving as Co-PI for SEM-R in the Middle (2008) and curriculum specialist for Athena (2003) and Phoenix (1998).

Dr. Kylie Anglin will serve as Co-Principal Investigator. She is an Assistant Professor of Research Methods, Measurement, and Evaluation in the Department of Educational Psychology at the University of Connecticut. She is the lead or co-author of several articles about research

methodology using computational methods to analyze educational data and assess program effects. Dr. Anglin will lead the research component of coding and analyzing data on questioning and discourse, including supporting graduate assistant training.

Other Personnel

Research Associate. Dr. Kelly Kearney will be a Research Associate. She will coordinate project management, including school communications, graduate assistant supervision, and evaluation. She previously served as Research Associate on Project SPARK and Project LIFT.

Executive Program Director. Lisa Muller, M.S., will serve as Executive Program Director. She will support the project through tasks including organizing materials, managing consultant documentation, and supporting budget management and reporting. She has worked on multiple past research grants, including several Javits and IES grants.

Program Specialist. Dr. Siamak Vahidi will maintain the project website and will support use of technology resources, digital communication, and virtual professional learning. He has supported multiple past Javits and other research and dissemination grants.

Graduate Assistants. Several graduate assistants will support project implementation, including data management, coding, and analysis, as well as engagement with the professional learning activities. We will specifically seek to recruit graduate assistants with classroom experience and those who are members of groups that have traditionally been underrepresented.

Contractual/Consulting Support[2]

We will engage consultants to provide support for project activities. Three consultants will be hired to support each year's summer professional learning, including aspects of planning and

[2] Consultants are labeled as CT (for three-consultant team), LC1, and LC2 in management plan.

delivery. They will be hired based on expertise in supporting gifted learners from underserved groups; knowledge about project resources; and facility with questioning and discussion. We will engage an experienced and diverse team of consultants throughout the project.

Two additional lead consultants will be hired based on their expertise to support development, implementation, and dissemination. One lead consultant (LC1) will assist the project team in developing and using project instruments, including coordinating development, piloting, revision, and reporting for the teacher self-efficacy scale and the rating scale on student behaviors. A second lead consultant (LC2) will support development and evaluation of professional learning, including specific expertise in the project materials, supporting teachers in facilitating higher-level thinking, and working with underserved populations.

Project Resources

Project Focus is designed to accomplish its goals, provide supports for participants, and contribute to the information of the field through efficient and coordinated use of resources. The project uses funds to (a) conduct evidence-based research linked to the project goals in support of identification and services for gifted learners, particularly those from traditionally underserved groups, and (b) disseminate information about the project's methods and their effectiveness in supporting professional learning and services for gifted learners. The project estimates direct engagement of at least 240 teachers in primary project activities and a modest estimate of 15 students per teacher, for a total of at least 3,600 students. Further, we estimate many more teachers and their students will learn from outreach and dissemination efforts, as will future students of project teachers who will benefit beyond the period of Federal assistance. The attached budget narrative provides details on costs and their contributions to the project goals.

Other Attachment File(s)

*** Mandatory Other Attachment Filename:** 1237-ProjectFocus_References.pdf

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[redacted]

Neag School of Education
Department of Educational Psychology
University of Connecticut

[redacted]

Current Position: Professor, Department of Educational Psychology, Neag School of Education, University of Connecticut (2017-present)

EDUCATION

Ph. D. The College of William and Mary 2001
Educational Policy, Planning, and Leadership, with emphasis in Gifted Education Administration
Dissertation Title: *A Study of Metaphor Development in Young Gifted Children*

M.A.Ed. The College of William and Mary 1997
Gifted Education

B.A. The College of William and Mary 1994
Summa cum laude, Dual Concentration in History and Elementary Education

SELECTED RELEVANT EXPERIENCE

Associate Professor, Educational Psychology, University of Connecticut, 2010-2017

Assistant Professor, Educational Psychology, University of Connecticut, 2004-2010

Visiting Assistant Professor in Gifted Education, The College of William and Mary, 2003-2004

Curriculum and Program Development Coordinator, Center for Gifted Education, The College of William and Mary, 1999-2003

Teacher, Saturday and Summer Enrichment Programs, Center for Gifted Education, 1996–1998

Teacher, third grade, Sussex County Public Schools, Sussex, VA 1994–1996

SELECTED HONORS AND AWARDS

Distinguished Service Award, National Association for Gifted Children, 2020

Dr. Lynne Goodstein and Dr. Peter Langer Award for Honors Advising, UConn, 2018

University of Connecticut Teaching Fellow, 2012-2013

Linking Research and Practice Outstanding Publication Award – *Mathematics Teaching in the Middle School*, National Council of Teachers of Mathematics, 2011

Michael Pyryt Collaboration Award (with B. Simonsen), SIG for Research on Giftedness, Creativity, and Talent, American Educational Research Association, 2010

Early Leader Award, National Association for Gifted Children, 2008

SELECTED PUBLICATIONS

Horn, C. V., **Little, C. A.**, Maloney, K. N., & McCullough, C. A. (2021). *Young Scholars Model: A comprehensive approach for developing talent and pursuing equity in gifted education.* Prufrock.

Little, C. A., O'Brien, R., & Kearney, K. L. (in press). Qualitative assessment tools for identification: Curriculum-based product/performance tasks. In J. VanTassel-Baska & S. Johnsen (Eds.), *Handbook on assessments for gifted learners.* Routledge.

Little, C. A., & Hayden, S. M. (2020). Instructional strategies to support low-income learners: The humanities. In T. Stambaugh & P. Olszewski-Kubilius (Eds.), *Unlocking potential: Identifying and serving gifted students from low-income households* (pp. 127-160). Prufrock Press.

Reis, S. M., **Little, C. A.,** Fogarty, E., Housand, A. M., Housand, B. C., Eckert, R. D., & Muller, L. M. (2018). Case studies of schoolwide enrichment model-reading (SEM-R) classroom implementations of differentiated and enriched reading instruction. *International Journal for Talent Development and Creativity, 6,* 63–86.

Brigandi, C., Weiner, J., Siegle, D., Gubbins, E. J., & **Little, C. A.** (2018). Environmental perceptions of gifted secondary school students engaged in an evidence-based enrichment practice. *Gifted Child Quarterly, 62,* 289-305. doi:10.1177/0162353216671837

Little, C. A., Adelson, J. L., Kearney, K. L., Cash, K., & O'Brien, R. (2018). Early opportunities to strengthen academic readiness: Effects of summer learning on mathematics achievement. *Gifted Child Quarterly, 62,* 83-95. doi:10.1177/0016986217738052

Little, C. A. (2017). Designing and implementing concept-based curriculum. In L. S. Tan, L. D. Ponnusamy, & C. G. Quek (Eds.), *Curriculum for high ability learners – issues, trends, and practices* (pp. 43-59). Singapore: Springer.

Little, C. A. (2017). Teaching strategies to support the education of gifted learners. In S. I. Pfeiffer (Ed.), *APA handbook of giftedness and talent.* Washington, DC: American Psychological Association.

VanTassel-Baska, J., & **Little, C. A.** (Eds.). (2017). *Content-based curriculum for high-ability learners* (3rd ed.). Waco, TX: Prufrock Press.

Brigandi, C., Siegle, D., Weiner, J., Gubbins, E. J., & **Little, C. A.** (2016). Gifted secondary school students: The perceived relationship between enrichment and goal valuation. *Journal for the Education of the Gifted, 39,* 263-287. doi:10.1177/0162353216671837

Gilson, C. M., & **Little, C. A.** (2016). Understanding how teachers listen in a reading enrichment program. *Journal of Advanced Academics, 27,* 210-240.

Siegle, D., Gubbins, E. J., O'Rourke, P., Langley, S. D., Chung, R. U., Luria, S. R., **Little, C. A**.,… & Plucker, J. A. (2016). Barriers to underserved gifted students' participation in gifted programs and possible solutions. *Journal for the Education of the Gifted, 39,* 103-131.

Gilson, C. M., **Little, C. A.,** Ruegg, A., & Bruce-Davis, M. (2014). An investigation of elementary teachers' use of differentiated follow-up questions during individualized reading conferences. *Journal of Advanced Academics, 25,* 101-128. doi:10.1177/1932202X14532257

Little, C. A., McCoach, D. B., & Reis, S. M. (2014). Effects of differentiated reading instruction on student achievement in middle school. *Journal of Advanced Academics, 25,* 384-402.

Wilson, H. E., Siegle, D., McCoach, D. B., **Little, C. A.**, & Reis, S. M. (2014). A model of academic self-concept: Perceived difficulty and social comparison among academically accelerated secondary school students. *Gifted Child Quarterly, 58,* 111-126. doi: 10.1177/0016986214522858

Siegle, D., Wilson, H. E., & **Little, C. A.** (2013). A sample of gifted and talented educators' attitudes about academic acceleration. *Journal of Advanced Academics, 24,* 27-51.

Little, C. A. (2012). Curriculum as motivation for gifted students. *Psychology in the Schools, 49,* 695-705.

Reis, S. M., McCoach, D. B., **Little, C. A.,** Muller, L. M., & Kaniskan, B. (2011). The effects of differentiated instruction and enrichment pedagogy on reading achievement in five elementary schools. *American Educational Research Journal, 48,* 462-501..

Simonsen, B., & **Little, C. A.** (2011). Single-subject research in gifted education. *Gifted Child Quarterly, 55,* 158-162.

Simonsen, B., **Little, C.**, & Fairbanks, S. (2010). Task difficulty, attention, and student behavior: A study of student behavioral response to differentiated tasks. *Journal for the Education of the Gifted, 34,* 245-260.

SELECTED PUBLICATIONS LEADERSHIP

Associate Editor, *Gifted Child Quarterly,* 2012-2017.
Editorial Board, *Gifted Child Quarterly,* 2017-present.
Editorial Board, *Journal of Advanced Academics,* 2007-present.

SELECTED MEMBERSHIP/LEADERSHIP IN PROFESSIONAL ASSOCIATIONS

American Educational Research Association (AERA), 2002-present.
Secretary, SIG: Research on Giftedness, Creativity, and Talent, 2012-2014
Program Chair, SIG: Research on Giftedness, Creativity, and Talent, 2011-2012
Assistant Program Chair, SIG: Research on Giftedness, Creativity, and Talent, 2010-2011
Member-at-Large, SIG: Research on Giftedness and Talent Development, 2006-2008, 2008-2010

National Association for Gifted Children (NAGC), 1996-present.
Member-at-Large, Board of Directors, 2011-2014, 2020-2023.
Governance Secretary, 2016-2018.
Treasurer, 2014-2016.
Publications Committee, 2018-2020.
Leadership Development Committee, 2007-2011.

SELECTED GRANT/CONTRACT WORK (FUNDED)

National Center for Research on Gifted Education, from the Institute of Education Sciences (PI and Director Del Siegle), Co-Investigator, 2020-2025. [redacted]

Project LIFT, grant from the U. S. Department of Education Jacob K. Javits Program, Principal Investigator, 2017-2022. [redacted]

Project SPARK, grant from the U. S. Department of Education Jacob K. Javits Program, Principal Investigator, 2014-2019. [redacted].

SEM-R in the Middle (grant from the U. S. Department of Education Jacob K. Javits Program): Co-Principal Investigator, 2008-2013 [Funding cut 2011 in federal budget; originally [redacted]]

Evaluation for Teacher Quality Partnership Grant Program (contract with Connecticut Department of Higher Education under federal grant funding): Principal Investigator, 2007-2011. Approx. [redacted] per year.

SELECTED RECENT CONFERENCE PRESENTATIONS (*****Indicates refereed presentation)

* Little, C. A., O'Brien, R., Charbonneau, S., Cascio, A., Kearney, K. L., & Masse, S. (2022, April). *Examining changes in classroom practice through repeated observations.* Paper presentation accepted for the annual convention of the American Educational Research Association, San Diego, CA, United States.

* Adelson, J., Assouline, S., Foley Nicpon, M., Little, C. A., Olszewski-Kubilius, P., & Robinson, A. (2022, February). *Evidence for what works in gifted education: Programs addressing excellence and equity.* Presentation at the annual convention of the Council for Exceptional Children. [Virtual]

* Little, C. A., & Rodrigues, C. (2021, November). *Savoring struggle: Giving students (and teachers!) tools for meeting challenges.* Presentation at the annual convention of the National Association for Gifted Children, Denver, CO, United States.

* Kearney, K. L., Peters, P. M., & Little, C. A. (2021, April). *Broadening teachers' understanding of high potential.* Paper presentation at the annual convention of the American Educational Research Association. [Virtual]

Little, C. A., & Stambaugh, T. (2021, March). *Federal investment in gifted and talented students: An overview of the Javits program past and present.* Presentation at the annual NAGC Leadership and Advocacy Conference. [Virtual]

* Adelson, J. L., Robinson, A., Makel, M., Olszewski-Kubilius, P., Steenbergen-Hu, S., & Little, C. A. (2020, November). *Programs to identify and serve high-achieving students with economic need.* Presentation at the annual convention of the National Association for Gifted Children. [Virtual]

* Siegle, D., Little, C. A., & Gubbins, E. J. (2019, November). *Effecting change: Promising practices with gifted students from underserved populations.* Presentation at the conference of the Connecticut Association of Boards of Education and Connecticut Association of Public School Superintendents, Mystic, CT, United States.

Mofield, E., Kettler, T., Dai, D., Stambaugh, T., & **Little, C. A.** (2019, November). *Emerging conceptions of gifted curriculum: Where are we and where do we go from here?* Invited panel discussion at the annual meeting of the National Association for Gifted Children, Albuquerque, NM, United States.

* **Little, C. A.,** O'Brien, R. L., Kearney, K. L., & Little, S. (2019, April). *Instructional practices and perceptions of high potential.* Paper presentation at the annual meeting of the American Educational Research Association, Toronto, Canada.

BIOGRAPHICAL SKETCH

Provide the following information for the Senior/key personnel and other significant contributors.
Follow this format for each person. DO NOT EXCEED FIVE PAGES.

NAME: Anglin, Kylie

eRA COMMONS USER NAME (credential, e.g., agency login):

POSITION TITLE: Assistant Professor

EDUCATION/TRAINING *(Begin with baccalaureate or other initial professional education, such as nursing, include postdoctoral training and residency training if applicable. Add/delete rows as necessary.)*

INSTITUTION AND LOCATION	DEGREE (if applicable)	END DATE MM/YYYY	FIELD OF STUDY
Southwestern University	BA	05/2013	Political Science
University of Virginia, Charlottesville, VA	PHD	05/2021	Education

A. Personal Statement

I am an Assistant Professor of Research Methods, Measurement, and Evaluation in the Neag School of Education at the University of Connecticut. My research develops methods for analyzing educational data using natural language processing (NLP), as well as methods for improving the validity and replicability of education research. I am the lead or co-author of several articles on research methodology. In particular, I have published papers using natural language processing to analyze unstructured educational data found online (like policy documents) and in classrooms (like transcripts of classroom conversations). My work has appeared in the Journal of Research on Educational Effectiveness, Prevention Science, AERA Open, and Evaluation Review. I have participated in the Institute for Education Sciences (IES) Pre-doctoral Training Program at the University of Virginia and received an NAEd/Spencer dissertation fellowship in 2020 for my dissertation work on using NLP to measure implementation constructs.

B. Positions, Scientific Appointments and Honors

Positions and Scientific Appointments

2021 - Assistant Professor, University of Connecticut, Educational Psychology, Storrs, CT

Honors

2022	Jean Flanigan Dissertation Award Honorable Mention, Association for Education Finance and Policy
2021	Gansneder Award for Outstanding Quantitative Dissertation, University of Virginia
2020-2021	Dissertation Fellow, NAEd/Spencer
2016-2019	Institute of Education Sciences Pre-Doctoral Fellow

C. Contribution to Science

1. Measurement Development Using Natural Language Processing

In my primary area of research, I develop scalable methods of analyzing text data in order to measure educational processes. Commonly, this involves analyzing transcripts of conversations taking place in educational contexts. For example, in recent research I address a critical challenge in evaluation contexts: collecting implementation data in ways that are feasible and scalable. I demonstrate how NLP methods may be used to efficiently analyze data that are naturally generated during intervention delivery: data like caseworker

notes, transcripts, and organizational documents. To this end, I have developed an NLP-based measure of treatment fidelity which can be used to measure variations in conversation-based interventions like coaching, therapy, and curricula. This measure has been incorporated in five successful research grants (Wong (PI) & Steiner (Co-PI), R305D190043; Cook (PI), Wong (co-PI) & Therrien (co-PI), R324U190001; Solari (PI), Baker (Co-PI), Richards-Tutor (co-PI) & Wong (co-PI), R324R200014, and Cohen (PI) & Wong (co-PI), Robertson Foundation; Downer (PI) & Wright (Co-PI), internal funding). I have similarly developed and validated methods for using NLP to efficiently gather and extract information from online policy documents. This method is currently being used to evaluate the implementation of educational deregulation in Texas (under review) and to explore the content of school district equity policies (in-progress). Finally, in a paper currently under review, I have evaluated human-coding interfaces for training text classifiers.

a. **Anglin K**, Wong V, Boguslav A. A Natural Language Processing Approach to Measuring Treatment Adherence and Consistency Using Semantic Similarity. AERA Open. 2021 June 30; 7:233285842110286-. Available from: http://journals.sagepub.com/doi/10.1177/23328584211028615 DOI: 10.1177/23328584211028615
b. **Anglin K**. Gather-Narrow-Extract: A Framework for Studying Local Policy Variation Using Web-Scraping and Natural Language Processing. Journal of Research on Educational Effectiveness. 2019 December 06; 12(4):685-706. Available from: https://www.tandfonline.com/doi/full/10.1080/19345747.2019.1654576 DOI: 10.1080/19345747.2019.1654576

2. Replication and Validity in Education Research

My second area of work aims to improve replicability and validity of educational research. To that end, I develop design-based approaches to replication studies that allow researchers to draw clear conclusions from replication success and failure. Similarly, I examine the contexts and conditions under which quasi-experimental methods yield unbiased results in field settings. This research not only provides methodological guidance for the field but also ensures that I am well attuned to threats to validity in my own research.

a. Wong V, **Anglin K**, Steiner P. Design-Based Approaches to Causal Replication Studies. Prevention Science. 2021 July 01; Available from: https://link.springer.com/10.1007/s11121-021-01234-7 DOI: 10.1007/s11121-021-01234-7
b. **Anglin K**, Krishnamachari A, Wong V, Anglin K, Krishnamachari A, Wong V. Methodological Approaches for Impact Evaluation in Educational Settings. Education [Internet] Oxford University Press; 2020-02-26. Available from: http://oxfordbibliographiesonline.com/view/document/obo-9780199756810/obo-9780199756810-0244.xml DOI: 10.1093/obo/9780199756810-0244
c. Steiner P, Wong V, **Anglin K**. A Causal Replication Framework for Designing and Assessing Replication Efforts. Zeitschrift für Psychologie. 2019 October; 227(4):280-292. Available from: https://econtent.hogrefe.com/doi/10.1027/2151-2604/a000385 DOI: 10.1027/2151-2604/a000385
d. Wong V, Steiner P, **Anglin K**. What Can Be Learned From Empirical Evaluations of Nonexperimental Methods?. Evaluation Review. 2018 October 15; 42(2):147-175. Available from: http://journals.sagepub.com/doi/10.1177/0193841X18776870 DOI: 10.1177/0193841X18776870

Ongoing Research Support

Institute of Education Sciences [redacted] Wong (PI) 09/01/19–08/31/22

Developing Methodological Foundations for Replication Sciences

Development of Natural Language Processing-based measures of intervention replicability.
Role: Sub-Contract

Completed Research Support

Spencer Foundation/NAeD [redacted] Anglin (PI) 09/01/19–08/31/21

Improving Impact Evaluations with Low-Cost, Automated, and Scalable Tools for Implementation Research

Role: Principal Investigator

[redacted]
Neag School of Education
Department of Educational Psychology
University of Connecticut

[redacted]

EDUCATION

Ph.D. University of Connecticut, 2014
Educational Psychology, concentration in Gifted and Talented Education
Certificate in College Instruction, Certificate in Adult Learning
Dissertation: *Promoting Talent Development in Adolescents: Protective Factors and Linkages to Summer Program Participation*

M.A. University of Connecticut, 2008
Educational Psychology, concentration in Gifted and Talented Education

B.S. University of Connecticut, 2007
Magna cum laude, Human Development and Family Studies
Honors Thesis: *Students' Perceptions of Self-Concept, Educational Development, and Their Research Mentoring Experience in a Summer Mentoring Program for Gifted Adolescents*

PROFESSIONAL EXPERIENCE

Research Associate II, Project SPARK and Project LIFT, Renzulli Center for Gifted Education, Talent Development, and Creativity, University of Connecticut, 2020-Present.

Research Associate I, Project SPARK and Project LIFT, Renzulli Center for Gifted Education, Talent Development, and Creativity, University of Connecticut, 2016-2019.

Postdoctoral Research Fellow, Project SPARK, Neag Center for Gifted Education and Talent Development, University of Connecticut, 2015-2016.

Research Assistant, Neag Center for Gifted Education and Talent Development, University of Connecticut, 2011-2014.

First Grade Teacher, Saint Joseph School, Meriden, CT, 2009-2011.

SELECTED SPECIAL PROJECTS

Conference Co-Chair, *New England Conference on the Gifted and Talented*, 2015.

Conference Coordinator, *Exploring Expertise Conference*, Neag Center for Gifted Education and Talent Development, 2014-2015.

Data Analyst/Editor, *2011-2013 State of the States in Gifted Education*, National Association for Gifted Children, 2013.

Curriculum Editor, *Project M²: Mentoring Young Mathematicians: Exploring Shapes in Space: Geometry with the Frogonauts* and *Sizing up the Lily Pad Space Station: Measuring with the Frogonauts*, 2012-2013.

External Evaluation Team Member, Teacher Quality Partnership Grant Program, administered by the Connecticut State Department of Education, 2007-2009.

SELECTED HONORS AND AWARDS

Dissertation Award Runner-Up, Research and Evaluation Network, NAGC, 2015.

Doctoral Student Fellowship, Neag School of Education, University of Connecticut, 2013 & 2012.
First Place for Non-Doctoral Completed Research, Graduate Student Research Gala, annual meeting of the National Association for Gifted Children, 2008.
New England Scholar, University of Connecticut, 2005, 2007, 2008.
Presidential Scholar, University of Connecticut, 2004-2007.

SELECTED PUBLICATIONS *(*indicates peer-reviewed publication)*

Little, C. A., O'Brien, R., & **Kearney, K. L.** (in press). Qualitative assessment tools for identification: Curriculum-based product/performance tasks. In J. VanTassel-Baska & S. Johnsen (Eds.), *Handbook on assessments for gifted learners.* Routledge.

*Little, C. A., Adelson, J. L., **Kearney, K. L.,** Cash, K., O'Brien, R. L. (2018). *Early opportunities to strengthen academic readiness: Effects of summer learning on mathematics achievement. Gifted Child Quarterly, 62*, 83-95.

Little, C.A. & **Kearney, K. L.** (2014). Leadership development for high ability students. In F. A. Dixon & S. M. Moon (Eds.), *Handbook of Secondary Gifted Education* (2nd ed., pp. 483- 508). Waco, TX: Prufrock.

VanTassel-Baska, J., McIntosh, J. S., & **Kearney, K. L.** (2014). Secondary affective curriculum and instruction for gifted learners. In F. A. Dixon & S. M. Moon (Eds.), *Handbook of Secondary Gifted Education* (2nd ed., pp. 509-561). Waco, TX: Prufrock.

*Little, C. A., **Kearney, K. L.**, & Britner, P. A. (2010). Students' self-concept and perceptions of mentoring relationships in a summer mentorship program for talented adolescents. *Roeper Review*, *32,* 189-199.

SELECTED CONFERENCE PRESENTATIONS *(*indicates peer-reviewed proposal)*

* Little, C. A., O'Brien, R., Charbonneau, S., Cascio, A., **Kearney, K. L**., & Masse, S. (2022, April). *Examining changes in classroom practice through repeated observations.* Paper presentation accepted for the annual convention of the American Educational Research Association, San Diego, CA, United States.

* **Kearney, K. L.**, Peters, P. M., & Little, C. A. (2021, April). *Broadening teachers' understanding of high potential.* Paper presentation at the annual convention of the American Educational Research Association. [Virtual]

* **Kearney, K. L.,** Peters, P., & Little, C. A., (2020, April). *Professional learning experiences and teacher perceptions of potential.* Poster presentation at the annual meeting of the American Educational Research Association, San Francisco, CA, United States. [Virtual]

*****Little, C. A., Adelson, J. L., **Kearney, K. L.,** & O'Brien, R. L., (2020, April). Project SPARK. In J. L. Jolly (Chair), *Interventions to identify and serve high-achieving students with economic need* [Symposium]. Presentation at the annual meeting of the American Educational Research Association, San Francisco, CA, United States. [Virtual]

***Kearney, K. L.**, Peters, P., & O'Brien, R. L. (2019, November). *"See me!" Examining and expanding teacher perceptions of high potential.* Poster presentation at the annual meeting of the National Association for Gifted Children, Albuquerque, NM, United States.

*Peters, P., **Kearney, K. L.,** Little, C. A., & O'Brien, R. L. (2019, July). *General education teachers' understanding of high potential in typically underserved students.* Parallel presentation at the annual meeting of the World Council for Gifted and Talented Children, Nashville, TN, United States.

*Little, C. A., **Kearney, K. L.,** O'Brien, R. L., Adelson, J. A., Pittard, C. (2019, April). *Access and identification: Gifted program identification following early referral for high-potential behaviors.* Paper presentation at the annual meeting of the American Educational Research Association, Toronto, Canada.

*Little, C. A., O'Brien, R. L., **Kearney, K. L.**, Little, S. (2018, April). *Instructional practices and perceptions of high potential.* Paper presentation at the annual meeting of the American Educational Research Association, Toronto, Canada.

***Kearney, K. L.,** Cash, K., Adelson, J. L., Little, C. A., & O'Brien, R., L. (2017, April) *Promoting diversity in the referral process: Teacher ratings and other assessments across demographic groups.* Paper presentation at the annual meeting of the American Educational Research Association, San Antonio, TX, United States.

*Little, C. A., Adelson, J. A., **Kearney, K. L.**, Cash, K., & O'Brien, R. L. (2017, April) *Challenging ALL advanced learners: Research insights from projects funded by the Jacob K. Javits Program.* Poster presentation at the annual meeting of the American Educational Research Association, San Antonio, TX, United States.

***Kearney, K. L.** (2014, April). *Teachers' instructional practices and curriculum implementation following the completion of curriculum field tests: A follow-up study.* Poster presentation at the annual meeting of the American Educational Research Association, Philadelphia, PA, United States.

*Gilson, C. M., Little, C.A., & **Kearney, K. L**. (2013, November). *Promoting professional teacher reflection on questioning and listening behaviors.* Presentation at the annual meeting of the National Association for Gifted Children, Indianapolis, IN, United States.

*Little, C. A., Massicotte, C. M., **Kearney, K. L.,** & Ruegg, A. (2013, April). *What the teacher says: A study of questioning and differentiation in elementary reading conferences.* Roundtable presentation at the annual meeting of the American Educational Research Association, San Francisco, CA, United States.

SELECTED MEMBERSHIP AND SERVICE IN PROFESSIONAL ASSOCIATIONS

National Association for Gifted Children (NAGC), 2008-present.
Chair Elect, Early Childhood Network, 2020-present.
Reviewer, *Gifted Child Quarterly,* 2014-present.
Membership Committee, Research & Evaluation Network, 2012-present.

American Educational Research Association (AERA), 2009-present.
Conference Proposal Reviewer, Research on Giftedness, Creativity, and Talent Development

Connecticut Association for the Gifted, 2015-present.
Board of Directors, 2015-2021.
Secretary, 2015-2017.

Bloomfield Public Schools | Raising the Bar is Taking us Far

James Thompson, Jr., Ed.D.
Superintendent of Schools

April 8, 2022

Dear Dr. Little:

I am pleased to write a letter of support for your grant proposal for Project Focus to the Jacob K. Javits Gifted and Talented Education Program. The Bloomfield Public Schools are committed to providing learning opportunities for all students to pursue their potential, and we support the focus of the project on promoting professional practice around recognizing advanced learning needs in diverse groups of students and providing challenging instructional support.

We recognize that the project activities will include professional learning opportunities for participating elementary school teachers, with the implementation of materials and practices designed to elicit and develop advanced learning behaviors. We also understand the research focus of the project on documenting and analyzing details of classroom questioning and discourse to support ongoing professional learning efforts. We further recognize that the primary emphasis of the project is to support teachers working in schools with high populations of students from populations traditionally underserved by gifted and talented programming.

If funded, no project activities will occur until full approval has been obtained from the University of Connecticut Institutional Review Board and the Bloomfield Public Schools.

The project demonstrates potential benefits for all learners through a focus on regular classroom practice, as well as encouraging instructional responsiveness to high-potential learners. We anticipate that this work will provide opportunities to enhance professional practice and to promote high-level learning for all students, including those from underserved populations.

We look forward to the possibility of working with you to support students with high potential in developing their talents and supporting teachers in their professional work.

[redacted]
Superintendent of Schools

1133 Blue Hills Avenue ▪ Bloomfield, CT 06002 ▪ (860) 769-4200 ▪ Fax (860) 769-4215
www.bloomfieldschools.org

Catholic Academy
of Waterbury

March 31, 2022

Dear Dr. Little:

I am pleased to write a letter of support for your grant proposal for Project Focus to the Jacob K. Javits Gifted and Talented Education Program. Catholic Academy of Waterbury is committed to providing learning opportunities for all students to pursue their potential, and we support the focus of the project on promoting professional practice around recognizing advanced learning needs in diverse groups of students and providing challenging instructional support.

We recognize that the project activities will include a variety of professional learning opportunities for participating elementary school teachers, including access to materials and practices designed to elicit and develop advanced learning behaviors. We also understand the research focus of the project on documenting and analyzing details of classroom questioning and discourse to support ongoing professional learning efforts. We further recognize that a key emphasis of the project is to support teachers working in a diverse range of schools, including teachers who themselves come from diverse backgrounds and those who come from the communities whose students they serve.

If funded, no project activities will occur until full approval has been obtained from the University of Connecticut Institutional Review Board and Catholic Academy of Waterbury.

The project demonstrates potential benefits for all learners through focus on regular classroom practice, as well as encouraging instructional responsiveness to high-potential learners. We anticipate that this work will provide opportunities to enhance professional practice and to promote high-level learning for all students, including those from underserved populations.

We look forward to the possibility of working with you to support students with high potential in developing their talents and supporting teachers in their professional work.

[redacted]

386 Robinwood Road
Waterbury, CT 06708

Phone: 203-756-5313
Fax: 203-346-0745
www.catholicacademywaterbury.org

Lori Leibowitz
Assistant Education Administrator
of Gifted and Talented
[redacted]
125 East Avenue, PO BOX 6001
Norwalk, CT 06852-6001

DEPARTMENT OF CURRICULUM AND INSTRUCTION

April 5, 2022

Dear Dr. Little:

I am pleased to write a letter of support for your grant proposal for Project Focus to the Jacob K. Javits Gifted and Talented Education Program. The Norwalk Public Schools are committed to providing learning opportunities for all students to pursue their potential, and we support the focus of the project on promoting professional practice around recognizing advanced learning needs in diverse groups of students and providing challenging instructional support.

We recognize that the project activities will include professional learning opportunities for participating elementary school teachers, with implementation of materials and practices designed to elicit and develop advanced learning behaviors. We also understand the research focus of the project on documenting and analyzing details of classroom questioning and discourse to support ongoing professional learning efforts. We further recognize that the primary emphasis of the project is to support teachers working in schools with high populations of students from populations traditionally underserved by gifted and talented programming.

If funded, no project activities will occur until full approval has been obtained from the University of Connecticut Institutional Review Board and the Norwalk Public Schools.

The project demonstrates potential benefits for all learners through a focus on regular classroom practice, as well as encouraging instructional responsiveness to high-potential learners. We anticipate that this work will provide opportunities to enhance professional practice and to promote high-level learning for all students, including those from underserved populations.

We look forward to the possibility of working with you to support students with high potential in developing their talents and supporting teachers in their professional work.

[redacted]

Andrew D. Deacon, Ed.D.
Director of Intervention & Academic Support K-5
Office of Teaching & Learning
Torrington Public Schools
355 Migeon Avenue
Torrington, Connecticut 06790
[redacted]

March 23, 2022

Dear Dr. Little:

I am pleased to write a letter of support for your grant proposal for Project Focus to the Jacob K. Javits Gifted and Talented Education Program. The Torrington Public Schools are committed to providing learning opportunities for all students to pursue their potential, and we support the focus of the project on promoting professional practice around recognizing advanced learning needs in diverse groups of students and providing challenging instructional support.

We recognize that the project activities will include professional learning opportunities for participating elementary school teachers, with implementation of materials and practices designed to elicit and develop advanced learning behaviors. We also understand the research focus of the project on documenting and analyzing details of classroom questioning and discourse to support ongoing professional learning efforts. We further recognize that the primary emphasis of the project is to support teachers working in schools with high populations of students from populations traditionally underserved by gifted and talented programming.

If funded, no project activities will occur until full approval has been obtained from the University of Connecticut Institutional Review Board and the Torrington Public Schools.

The project demonstrates potential benefits for all learners through focus on regular classroom practice, as well as encouraging instructional responsiveness to high-potential learners. We anticipate that this work will provide opportunities to enhance professional practice and to promote high-level learning for all students, including those from underserved populations.

We look forward to the possibility of working with you to support students with high potential in developing their talents and supporting teachers in their professional work.

Sincerely,

[redacted]

Question # 14: Areas Affected by Project (Cities, Counties, States, etc.):

The following areas will be affected by Project Focus:

Storrs, Tolland County, Connecticut

Waterbury, New Haven County, Connecticut

Bloomfield, Hartford County, Connecticut

Torrington, Litchfield County, Connecticut

Norwalk, Fairfield County, Connecticut

Connecticut – potential for other cities and counties

Virginia – potential for multiple cities and counties

Louisiana – potential for multiple cities and counties

Georgia – potential for multiple cities and counties

16b. Congressional Districts affected by Project Focus:

CT-all

GA-all

LA-all

VA-all

DEPARTMENT OF HEALTH & HUMAN SERVICES

Program Support Center
Financial Management Portfolio
Cost Allocation Services

26 Federal Plaza, Room 3412
New York, NY 10278
[redacted]

April 22, 2021

Ms. Patricia Casey
Associate Vice President, Financial Operations and Controller
University of Connecticut
343 Mansfield Road, Unit 1074
Storrs, CT 06269-1074

Dear Ms. Casey:

A negotiation agreement is being sent to you for signature. This agreement reflects an understanding reached between your institution and a member of my staff concerning the rates or amounts that may be used to support your claim for costs on grants and contracts with the Federal Government. The agreement must be signed by a duly authorized representative of your institution and emailed to me; retain a copy for your file. Our email address is cas-ny@psc.hhs.gov . We will reproduce and distribute the agreement to awarding agencies of the Federal Government for their use.

Requirements for adjustments to costs claimed under Federal Grants and Contracts resulting from this negotiation are dependent upon the type of rate contained in the negotiation agreement. Information relating to these requirements is enclosed.

In consideration of this negotiation, the following was agreed to:

1. The carry-forward under-recovery of [redacted] resulting from the settlement of your actual Professional fringe benefit rate for fiscal year ended June 30, 2020 will be taken into consideration in computing the actual fringe benefit rate for your fiscal year ending June 30, 2022.

2. The carry-forward under-recovery of [redacted] resulting from the settlement of your actual Faculty fringe benefit rate for fiscal year ended June 30, 2020 will be taken into consideration in computing the actual fringe benefit rate for your fiscal year ending June 30, 2022.

3. The carry-forward over-recovery of [redacted] resulting from the settlement of your actual Graduate Assistants fringe benefit rate for fiscal year ended June 30, 2020 will be taken into consideration in computing the actual fringe benefit rate for your fiscal year ending June 30, 2022.

4. The carry-forward under-recovery of [redacted] resulting from the settlement of your actual Special Payroll fringe benefit rate for fiscal year ended June 30, 2020 will be taken into consideration in computing the actual fringe benefit rate for fiscal years ending June 30, 2022 [redacted] and June 30, 2024 [redacted]

5. The carry-forward over-recovery of [redacted] resulting from the settlement of your actual Student Labor fringe benefit rate for fiscal year ended June 30, 2020 will be taken into consideration in computing the actual fringe benefit rate for your fiscal year ending June 30, 2022.

6. Your fringe benefit proposal for your fiscal year ending June 30, 2021 will be due by December 31, 2021.

An indirect cost rate proposal, together with the supporting information, is required to substantiate your claim for indirect costs under grants and contracts awarded by the Federal Government. Thus, your next proposal based on actual costs for the fiscal year ending 6/30/2022 is due in our office by 12/31/2022. If you are unable to submit your proposal by the prescribed date, you may request an extension. This request must be submitted prior to the due date of the proposal and must contain a justification for the extension and the date the proposal will be submitted. Please submit your next proposal electronically via email to CAS-NY@psc.hhs.gov. In addition, please acknowledge your concurrence with the comments and conditions cited above by signing this letter in the space provided below and returning it to me via email, along with the enclosed negotiation agreement.

[redacted]

lly signed by Darryl W. Mayes -S
US, o=U.S. Government,
HS, ou=PSC, ou=People,
42.19200300.100.1.1=20001316
=Darryl W. Mayes -S
2021.06.01 08:52:29 -04'00'

Enclosures

[redacted]

Date

COLLEGES AND UNIVERSITIES RATE AGREEMENT

[redacted]

The rates approved in this agreement are for use on grants, contracts and other agreements with the Federal Government, subject to the conditions in Section III.

SECTION I: INDIRECT COST RATES

RATE TYPES: FIXED FINAL PROV. (PROVISIONAL) PRED. (PREDETERMINED)

	EFFECTIVE PERIOD			
TYPE	**FROM**	**TO**	**RATE (%) LOCATION**	**APPLICABLE TO**
PRED.	07/01/2020	06/30/2023	[redacted]	Research
PRED.	07/01/2020	06/30/2023		Instruction
PRED.	07/01/2020	06/30/2023		Other Sponsored Programs
PRED.	07/01/2020	06/30/2023		All Programs
PROV.	07/01/2023	Until Amended		Use same rates and conditions as those cited for fiscal year ending June 30, 2023.

*BASE

Modified total direct costs, consisting of all direct salaries and wages, applicable fringe benefits, materials and supplies, services, travel and up to the first $25,000 of each subaward (regardless of the period of performance of the subawards under the award). Modified total direct costs shall exclude equipment, capital expenditures, charges for patient care, rental costs, tuition remission, scholarships and fellowships, participant support costs and the portion of each subaward in excess of $25,000. Other items may only be excluded when necessary to avoid a serious inequity in the distribution of indirect costs, and with the approval of the cognizant agency for indirect costs.

SECTION I: FRINGE BENEFIT RATES**

TYPE	FROM	TO	RATE(%)	LOCATION	APPLICABLE TO
FIXED	7/1/2020	6/30/2021	[redacted]		Professional
FIXED	7/1/2020	6/30/2021			Faculty
FIXED	7/1/2020	6/30/2021			Graduate Assistants
FIXED	7/1/2020	6/30/2021			Special Payroll
FIXED	7/1/2020	6/30/2021			Student Labor
FIXED	7/1/2021	6/30/2022			Professional
FIXED	7/1/2021	6/30/2022			Faculty
FIXED	7/1/2021	6/30/2022			Graduate Assistants
FIXED	7/1/2021	6/30/2022			Special Payroll
FIXED	7/1/2021	6/30/2022			Student Labor
PROV.	7/1/2022	Until amended			Professional
PROV.	7/1/2022	Until amended			Faculty
PROV.	7/1/2022	Until amended			Graduate Assistants
PROV.	7/1/2022	Until amended			Special Payroll
PROV.	7/1/2022	Until amended			Student Labor

** DESCRIPTION OF FRINGE BENEFITS RATE [redacted]

Salaries and wages.

SECTION II: SPECIAL REMARKS

TREATMENT OF FRINGE BENEFITS:

The fringe benefits are charged using the rate(s) listed in the Fringe Benefits Section of this Agreement. The fringe benefits included in the rate(s) are listed below.

TREATMENT OF PAID ABSENCES

Vacation, holiday, sick leave pay and other paid absences are included in salaries and wages and are claimed on grants, contracts and other agreements as part of the normal cost for salaries and wages. Separate claims are not made for the cost of these paid absences.

(1) For all activities performed in facilities not owned by the institution and to which rent is directly allocated to the project(s), the off-campus rate will apply. Grants or contracts will not be subject to more than one indirect cost rate. If more than 50% of a project is performed off-campus, the off-campus rate will apply to the entire project.

(2) The Fringe Benefit rates include the following: Pension, Unemployment Compensation, Worker's Compensation, Health Services, Group Life Insurance, Social Security, and Medical Insurance.

(3) The following is a list of the locations to which the On-Campus indirect cost rate is applicable to:

Storrs - Main Campus
Greater Hartford Campus:
Hartford Branch
School of Law
School of Social Work
School of Insurance
Institute of Public Services

Southeastern Location:
Groton, CT
Southeastern Branch
Marine Services Institute

Waterbury Branch, Torrington Branch, Stamford Branch

(4) Equipment means tangible personal property (including information technology systems) having a useful life of more than one year and a per-unit acquisition cost which equals or exceeds $5,000.

(5) A fringe benefit proposal based on actual costs for the fiscal year ended June 30, 2021 is due by December 31, 2021. A Facilities & Administrative cost proposal based on actual costs for the fiscal year ending June 30, 2022 is due by December 31, 2022.

This rate agreement updates fringe benefit rates only.

SECTION III: GENERAL

A. LIMITATIONS:

The rates in this Agreement are subject to any statutory or administrative limitations and apply to a given grant, contract or other agreement only to the extent that funds are available. Acceptance of the rates is subject to the following conditions: (1) Only costs incurred by the organization were included in its facilities and administrative cost pools as finally accepted: such costs are legal obligations of the organization and are allowable under the governing cost principles; (2) The same costs that have been treated as facilities and administrative costs are not claimed as direct costs; (3) Similar types of costs have been accorded consistent accounting treatment; and (4) The information provided by the organization which was used to establish the rates is not later found to be materially incomplete or inaccurate by the Federal Government. In such situations the rate(s) would be subject to renegotiation at the discretion of the Federal Government.

B. ACCOUNTING CHANGES:

This Agreement is based on the accounting system purported by the organization to be in effect during the Agreement period. Changes to the method of accounting for costs which affect the amount of reimbursement resulting from the use of this Agreement require prior approval of the authorized representative of the cognizant agency. Such changes include, but are not limited to, changes in the charging of a particular type of cost from facilities and administrative to direct. Failure to obtain approval may result in cost disallowances.

C. FIXED RATES:

If a fixed rate is in this Agreement, it is based on an estimate of the costs for the period covered by the rate. When the actual costs for this period are determined, an adjustment will be made to a rate of a future year(s) to compensate for the difference between the costs used to establish the fixed rate and actual costs.

D. USE BY OTHER FEDERAL AGENCIES:

The rates in this Agreement were approved in accordance with the authority in Title 2 of the Code of Federal Regulations, Part 200 (2 CFR 200), and should be applied to grants, contracts and other agreements covered by 2 CFR 200, subject to any limitations in A above. The organization may provide copies of the Agreement to other Federal Agencies to give them early notification of the Agreement.

E. OTHER:

If any Federal contract, grant or other agreement is reimbursing facilities and administrative costs by a means other than the approved rate(s) in this Agreement, the organization should (1) credit such costs to the affected programs, and (2) apply the approved rate(s) to the appropriate base to identify the proper amount of facilities and administrative costs allocable to these programs.

BY THE INSTITUTION:

University of Connecticut

[redacted]

ON BEHALF OF THE FEDERAL GOVERNMENT:

[redacted]

1. Level of Evidence

Select the level of evidence of effectiveness for which you are applying. See the Notice Inviting Applications for the relevant definitions and requirements.

Demonstrates a Rationale	Promising Evidence	Moderate Evidence	X Strong Evidence

2. Citation and Relevance

Fill in the chart below with the appropriate information about the studies that support your application.

A. Research/Citation	B. Relevant Outcome(s)/Relevant Finding(s)	C. Project Component(s)/Overlap of Populations and/or Settings
Pashler, H., Bain, P., Bottge, B., Graesser, A., Koedinger, K., McDaniel, M., and Metcalfe, J. (2007) *Organizing Instruction and Study to Improve Student Learning* (NCER 2007-2004). Washington, DC: National Center for Education Research, Institute of Education Sciences, U.S. Department of Education. Retrieved from http://ncer.ed.gov. https://ies.ed.gov/ncee/wwc/Docs/PracticeGuide/20072004.pdf This practice guide was prepared prior to version 1.0 of the WWC standards (2008) but included description of IES levels of evidence used at the time (see Table 1, p. v).	(Table 2., p. 2) Recommendation 7: ("Ask deep explanatory questions") is backed by strong evidence. (p. 29) Studies contributing to the "strong evidence" supporting the effectiveness of Recommendation 7 reported statistically significant and positive impacts of this practice on student understanding, comprehension, and achievement through specific techniques to support asking deep questions, constructing deep explanations, and helping students to ask deep questions to build explanations.	Project Focus specifically addresses the WWC recommendation to integrate questioning and discourse into classroom practice, specifically the following: • (Table 2, p. 2) "Use instructional prompts that encourage students to pose and answer 'deep-level' questions on course material. These questions enable students to respond with explanations and supports deep understanding of taught material." • (p. 29) "Periodically encourage students to 'think aloud' in speaking or writing their explanations as they study the material. After presenting their explanations, it is beneficial for them to get feedback by observing good explanations of peers, tutors, and teachers" • (p. 29) "Ask questions that elicit explanations, such as those with the following question stems: why, what caused X, how did X occur, what if, what-if-not, how does X compare to Y,

		what is the evidence for X, and why is X important?" Project Focus will equip teachers with resources and strategies for encouraging higher-level thinking; and develop new information about specific linguistic features that characterize high-quality classroom questioning and discussion, including components of accountable talk and academic rigor. The specific resources used in the project include deep questions to engage students in discussion, and they emphasize providing explanations to support responses and asking further questions.
Woodward, J., Beckmann, S., Driscoll, M., Franke, M., Herzig, P., Jitendra, A., Koedinger, K. R., & Ogbuehi, P. (2018). *Improving mathematical problem solving in grades 4 through 8: A practice guide* (NCEE 2012-4055). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education. Retrieved from http:// ies.ed.gov/ncee/wwc/publications_reviews.aspx #pubsearch/ This report was prepared under Version 2.0 of the WWC Handbook (p. 70). https://ies.ed.gov/ncee/wwc/Docs/PracticeGuide /MPS_PG_043012.pdf	(Table 2, p. 9). Recommendation 2 ("Assist students in monitoring and reflecting on the problem-solving process") is backed by strong evidence. (Table D.2, pp. 58-59, Table D.3 p. 59) Studies contributing to the "strong evidence" supporting the effectiveness of Recommendation 2 reported statistically significant and positive impacts of this practice on student achievement.	Project Focus will engage teachers in learning about elements of facilitating higher-level thinking through questioning, "talk moves," and using feedback. This effort reflects the recommendations of the practice guide because (pp. 17-18) "by building on students' ideas, teachers can help students clarify and refine the way they monitor and reflect as they solve a problem. Teachers can help students verbalize other ways to think about the problem. The teacher-student dialogue can include guided questioning to help students clarify and refine their thinking and to help them establish a method for monitoring and reflecting that makes sense to them." Further, the specific mathematics resources used in Project Focus include strong emphasis on articulating, discussing, and writing about problem-solving processes, including reflection questions.
Baker, S., Lesaux, N., Jayanthi, M., Dimino, J., Proctor, C. P., Morris, J., Gersten, R., Haymond, K., Kieffer, M. J., Linan-Thompson, S., & Newman-Gonchar, R. (2014). *Teaching*	(Table 1, p.7). Recommendation 2 ("Integrate oral and written English language instruction into content-area teaching," specifically the recommendation to "Provide daily opportunities	(p. 40) The curricular resources used in Project Focus are designed to support discussion in pairs and small groups, and (p. 41) the professional learning in the project will

academic content and literacy to English learners in elementary and middle school (NCEE 2014-4012). Washington, DC: National Center for Education Evaluation and Regional Assistance (NCEE), Institute of Education Sciences, U.S. Department of Education. Retrieved from the NCEE website: http://ies.ed.gov/ncee/wwc/publications_reviews.aspx. This report was prepared under Version 2.1 of the WWC Handbook (p. 80). https://ies.ed.gov/ncee/wwc/Docs/PracticeGuide/english_learners_pg_040114.pdf	for students to talk about content in pairs or small groups") is backed by strong evidence. All five studies resulted in positive impacts on content-area acquisition measures (p. 31). (Table D.2, pp. 90-91) Studies contributing to the "strong evidence" supporting the effectiveness of Recommendation 2 reported statistically significant and positive impacts of this practice on understanding of content.	specifically emphasize how teachers can effectively structure, model, and facilitate student use of talk moves in various discussion settings, including small group and large group contexts. The project also aligns with the emphasis in the practice guide on ensuring access to content learning by providing daily opportunities for discussion of content to promote achievement in content acquisition (p. 31).
Taylor, J. A., Roth, K., Wilson, C. D., Stuhlsatz, M. A., & Tipton, E. (2017). The effect of an analysis-of-practice, videocase-based, teacher professional development program on elementary students' science achievement. *Journal of Research on Educational Effectiveness, 10*(2), 241-271. Available at https://eric.ed.gov/?id=EJ1135795 Meets WWC Group Design Standards without Reservations under review standards 4.0 (https://ies.ed.gov/ncee/wwc/Study/85774)	(Figure 1, p. 245) STeLLA is an analysis-of-practice, videocase-based professional development program for elementary teachers that uses lesson video analysis to support teachers' learning about science content and effective science teaching. The program is intended to increase students' science achievement by increasing teachers' ability to attend to student thinking. Teachers attended PD and videocase analysis sessions with coaches to learn to continually probe student thinking to find out how students are making sense of new data or ideas, challenge students to stretch their thinking and to make new connections. Teachers were encouraged to have students communicate in scientific ways (such as making claims, providing evidence and reasoning to support claims, and listening and responding to others' ideas). The study sample included 2,823 students (1,485 in the intervention group and 1,338 in the comparison group) in fourth- and	Project Focus not only will engage teachers in strategies to probe students' thinking but will also engage them in an analysis-of-practice through ongoing monitoring and professional learning. Treatment group teachers will engage in professional learning both during a summer workshop and ongoing analysis-of-practice with professionals and coaches, just as in the SteLLA study. Treatment teachers will be asked to analyze and reflect on their own videos throughout Phases 2 and 3, with specific individualized coaching around videos of teaching practice during Phase 3. Project Focus is also a quasi-experimental design that includes both treatment and comparison conditions.

	fifth-grade classrooms in the participating schools. (Table 6, p. 260) Teachers who were engaged in the analysis-of-practice PD condition showed higher increases in students' content knowledge.	

Instructions for Evidence Form

1. **Level of Evidence.** Check the box next to the level of evidence for which you are applying. See the Notice Inviting Applications for the evidence definitions.

2. **Citation and Relevance.** Fill in the chart for each of the studies you are submitting to meet the evidence standards. If allowable under the program you are applying for, you may add additional rows to include more than four citations. (See below for an example citation.)
   a. **Research/Citation.** For Demonstrates a Rationale, provide the citation or link for the research or evaluation findings. For Promising, Moderate, and Strong Evidence, provide the full citation for each study or WWC publication you are using as evidence. If the study has been reviewed by the WWC, please include the rating it received, the WWC review standards version, and the URL link to the description of that finding in the WWC reviewed studies database. Include a copy of the study or a URL link to the study, if available. Note that, to provide promising, moderate, or strong evidence, you must cite either a specific recommendation from a WWC practice guide, a WWC intervention report, or a publicly available, original study of the effectiveness of a component of your proposed project on a student outcome or other relevant outcome.
   b. **Relevant Outcome(s)/Relevant Finding(s).** For Demonstrates a Rationale, describe how the research or evaluation findings suggest that the project component included in the logic model is likely to improve relevant outcomes. For Promising, Moderate and Strong Evidence, describe: 1) the project component included in the study (or WWC practice guide or intervention report) that is also a component of your proposed project, 2) the student outcome(s) or other relevant outcome(s) that are included in both the study (or WWC practice guide or intervention report) and in the logic model (theory of action) for your proposed project, and 3) the study (or WWC intervention report) finding(s) or WWC practice guide recommendations supporting a favorable relationship between a project component and a relevant outcome. Cite page and table numbers from the study (or WWC practice guide or intervention report), where applicable.
   c. **Project Component(s)/Overlap of Population and/or Settings.** For Demonstrates a Rationale, explain how the project component(s) is informed by the research or evaluation findings. For Promising, Moderate, and Strong Evidence, explain how the population and/or setting in your proposed project are similar to the populations and settings included in the relevant finding(s). Cite page numbers from the study or WWC publication, where applicable.

EXAMPLES: For Demonstration Purposes Only (the three examples are not assumed to be cited by the same applicant)

A. Research/Citation	B. Relevant Outcome(s)/Relevant Finding(s)	C. Project Component(s)/Overlap of Populations and/or Settings
Graham, S., Bruch, J., Fitzgerald, J., Friedrich, L., Furgeson, J., Greene, K., Kim, J., Lyskawa, J., Olson, C. B., & Smither Wulsin, C. (2016). Teaching secondary students to write effectively (NCEE 2017-4002). Washington, DC: National Center for Education Evaluation and Regional Assistance (NCEE), Institute of Education Sciences, U.S. Department of Education. Retrieved from the NCEE website: https://ies.ed.gov/ncee/wwc/PracticeGuide/22. This report was prepared under Version 3.0 of the WWC Handbook (p. 72).	*(Table 1, p. 4) Recommendation 1 ("Explicitly teach appropriate strategies using a Model – Practice – Reflect instructional cycle") is characterized as backed by "strong evidence."* *(Appendix D, Table D.2, pp. 70-72) Studies contributing to the "strong evidence" supporting the effectiveness of Recommendation 1 reported statistically significant and positive impacts of this practice on genre elements, organization, writing output, and overall writing quality.*	*(Appendix D, Table D.2, pp. 70-72) Studies contributing to the "strong evidence" supporting the effectiveness of Recommendation 1 were conducted on students in grades 6 through 12 in urban and suburban school districts in California and in the Mid-Atlantic region of the U.S. These study samples overlap with both the populations and settings proposed for the project.*

A. Research/Citation	B. Relevant Outcome(s)/Relevant Finding(s)	C. Project Component(s)/Overlap of Populations and/or Settings
U.S. Department of Education, Institute of Education Sciences, What Works Clearinghouse. (2017, February). Transition to College intervention report: Dual Enrollment Programs. Retrieved from https://ies.ed.gov/ncee/wwc/Intervention/1043. This report was prepared under Version 3.0 of the WWC Handbook (p. 1).	*(Table 1, p. 2) Dual enrollment programs were found to have positive effects on students' high school completion, general academic achievement in high school, college access and enrollment, credit accumulation in college, and degree attainment in college, and these findings were characterized by a "medium to large" extent of evidence.*	*(pp. 1, 19, 22) Studies contributing to the effectiveness rating of dual enrollment programs in the high school completion, general academic achievement in high school, college access and enrollment, credit accumulation in college, and degree attainment in college domains were conducted in high schools with minority students representing between 32 and 54 percent of the student population and first generation college students representing between 31 and 41 percent of the student population. These study samples overlap with both the populations and settings proposed for the project.*
Bettinger, E.P., & Baker, R. (2011). The effects of student coaching in college: An evaluation of a randomized experiment in student mentoring. Stanford, CA: Stanford University School of Education. Available at https://ed.stanford.edu/sites/default/files/bettinger_baker_030711.pdf *Meets WWC Group Design Standards without Reservations under review standards 2.1 (http://ies.ed.gov/ncee/wwc/Study/72030).*	*The intervention in the study is a form of college mentoring called student coaching. Coaches helped with a number of issues, including prioritizing student activities and identifying barriers and ways to overcome them. Coaches were encouraged to contact their assignees by either phone, email, text messaging, or social networking sites (pp. 8-10). The proposed project for Alpha Beta Community College students will train professional staff and faculty coaches on the most effective way(s) to communicate with their mentees, suggest topics for mentors to talk to their mentees, and be aware of signals to prevent withdrawal or academic failure.* *The relevant outcomes in the study are student persistence and degree completion (Table 3, p. 27), which are also included in the logic model for the proposed project.* *This study found that students assigned to receive coaching and mentoring were significantly more likely than students in the comparison group to remain enrolled at their institutions (pp. 15-16, and Table 3, p. 27).*	*The full study sample consisted of "13,555 students across eight different higher education institutions, including two- and four-year schools and public, private not-for-profit, and proprietary colleges." (p. 10) The number of students examined for purposes of retention varied by outcome (Table 3, p. 27). The study sample overlaps with Alpha Beta Community College in terms of both postsecondary students and postsecondary settings.*

Budget Narrative File(s)

*** Mandatory Budget Narrative Filename:** 1244-ProjectFocusBudgetNarrative.pdf

Add Mandatory Budget Narrative | Delete Mandatory Budget Narrative | View Mandatory Budget Narrative

To add more Budget Narrative attachments, please use the attachment buttons below.

Add Optional Budget Narrative | Delete Optional Budget Narrative | View Optional Budget Narrative

Project Focus

University of Connecticut

Budget Narrative

October 1, 2022-September 30, 2023 (Year 1)

1. Personnel

The total of personnel costs for all University of Connecticut faculty, staff, graduate assistants, and undergraduate student workers is [redacted] for Year 1. The total of participant support costs for Year 1 is [redacted]. The total of personnel for Year 1 is [redacted]

Senior Personnel:

Dr. Catherine Little, **Principal Investigator**. Dr. Catherine Little, Professor at the University of Connecticut, will be funded at 20% of her academic year salary (1.80 months effort) in Year 1 (annual salary of [redacted]). In addition, one month of summer support, 33.34% summer, is requested to be funded in Year 1 (3 months summer salary of [redacted]). Dr. Little's duties will include implementing project activities, recruiting participants, convening and leading meetings, leading curriculum-related project activities, and selecting and supervising staff. She will be responsible for the overall administration of the project, including oversight of budget, and assurance that the project maintains its timeline and budget and meets objectives. This leadership and supervision of the overall project, combined with Dr. Little's specific expertise, are important to ensuring that the project is successful in achieving its goals and outcomes.

Dr. Kylie Anglin, Co-Principal Investigator. Dr. Kylie Anglin, Assistant Professor at the University of Connecticut, will be funded at 12.5% of her academic year salary (1.13 months effort) in Year 1 (annual salary of [redacted]. In addition, one month of summer support, 33.34%

summer, is requested to be funded in Year 1 (3 months summer salary of [redacted]. Dr. Anglin will lead the UConn research team in the central research component of coding and analyzing data on classroom questioning and discourse, including supporting training of graduate assistants. Dr. Anglin will also be involved in the reporting and dissemination of study findings. Dr. Anglin's expertise in using natural language processing techniques to assess program effects will help to ensure the project's success in understanding and strengthening the influence of professional learning activities on classroom questioning and discourse.

Other Personnel:

Research Associate – Dr. Kelly Kearney. Dr. Kelly Kearney will be funded at 75% (9 calendar months) in Year 1 (annual salary of [redacted]) to coordinate key aspects of project management and implementation. Dr. Kearney will facilitate recruiting and communicating with school personnel, organizing and implementing professional learning activities, supervising and training graduate assistants, and reporting project progress and findings. She will also coordinate aspects of project evaluation, including interpreting qualitative feedback from project participants. Dr. Kearney's experience coordinating project management and qualitative analyses will contribute to the project's success through organized implementation and thorough evaluation to ensure focus on goals and outcomes.

Graduate Assistants. In Year 1, four level two GAs (academic year salary of [redacted] will provide academic year support (9 academic months, 20 hours/week) and will provide summer support to the project for 20 hours per week (3 months effort; summer salary of [redacted] The GA duties will include assisting senior personnel in all aspects of the project, including development of instruments and data collection and management. All project GAs will be trained in transcribing and coding classroom recordings to facilitate the analysis of classroom

questioning and discourse patterns. Given the volume of recorded classroom data that will require transcribing and coding, the GA team will contribute to the project's rigorous data analysis and interpretation of findings to contribute to ongoing effective professional learning.

Undergraduate Students. Funds are requested to support 214.29 hours of student workers in Year 1 at [redacted] per hour (Connecticut minimum wage) for a total of [redacted]. These persons will assist in project-related tasks in the office, including preparation of materials, data entry, and transcribing recordings. Their support ensures that GAs and other personnel can attend to project tasks requiring more advanced expertise and thus support project objectives.

Executive Program Director. Lisa Muller, M.S., will serve as the Executive Program Director for 20% (2.4 months effort) of her time in Year 1 (annual salary of [redacted]. Ms. Muller will serve as the primary University of Connecticut project liaison and be responsible for the coordination and planning of all project activities including the development of project materials, coordination with project partners, support for project reporting, and the logistical oversight of the project, as well as support for budget management. Her efforts to support project logistics and budget management help to ensure that the project meets its objectives in a timely manner that the project also meets all budget and reporting requirements.

Program Specialist. Dr. Siamak Vahidi will serve as the Program Specialist for 10% (1.2 months effort) in Year 1 (annual salary of [redacted]). Dr. Vahidi will co-develop and maintain the project website and will provide support for technology resources, communication, and virtual professional learning activities. He will assist with the formatting of all project-related materials. His efforts help to ensure that the project meets its dissemination goals.

Participant Support Costs

Teacher Stipends/Training Costs

Funds are requested to support project participants through stipends for their engagement in the project's professional learning activities. In Year 1, there will be 3 categories of teachers: observation, Cohort 1 treatment, and Cohort 1 comparison:

- Observation teachers will be recruited based on nominations from their administrators. They will be teachers who have shown strong skills in implementing questioning and discourse with use of materials targeting advanced learning. These teachers (n=10) will prepare and record 3-4 lessons each during Year 1 to provide the project with data for initial coding and analysis of key linguistic features during classroom discourse.
- The Cohort 1 treatment and comparison teachers will engage in project overview meetings, record 2 lessons each, and complete project instruments in Year 1 (spring 2023) to provide baseline data for the project. During summer 2023, Cohort 1 treatment teachers will participate in a professional learning workshop. We are estimating 20 teachers in the Cohort 1 treatment group and 20 teachers in the Cohort 1 comparison group.

The chart below illustrates the requested funding per teacher for Year 1. Stipends to teachers are based on [redacted]0 per hour (standard hourly rate of pay for many teachers within potentially participating districts). There will be 10 hours of participation in project activities for each group of teachers (i.e., observation, Cohort 1 treatment, Cohort 1 comparison) during the academic year and an additional 20 hours of participation for Cohort 1 treatment teachers during the summer. These components of teacher participation support professional learning and the overall goals of the project.

	Year 1

Observation Group (10 teachers across participating schools during academic year) [redacted])	[redacted]
Cohort 1 Treatment Group (20 teachers across participating schools during academic year) [redacted])	
Cohort 1 Treatment Group (20 teachers across participating schools during summer) [redacted]	
Cohort 1 Comparison Group (20 teachers across participating schools during academic year) [redacted])	
Total	

2. Fringe Benefits

Fringe benefit rates are negotiated with the Department of Health and Human Services as part of the University's Cost Rate Agreement and are calculated as a percentage of salaries. The following is a list of the fringe benefit rates by job title. Fringe benefits will only be charged on salaried employees at the University of Connecticut and do not apply to teacher stipends.

Senior Personnel:	**Fringe Rate %**
Principal Investigator-Based on Academic Year Salary	[redacted]
Principal Investigator-Based on 3 Month Summer Salary	
Co-Principal Investigator-Based on Academic Year Salary	
Co-Principal Investigator-Based on 3 Month Summer Salary	
Other Personnel:	
Research Associate-Based on Annual Salary	
Graduate Assistants-Based on Academic Year Salary	

Graduate Assistants-Based on 3 Month Summer Salary	[redacted]
Undergraduate Students-Based on Hourly Rate	
Executive Program Director-Based on Annual Salary	
Program Specialist-Based on Annual Salary	

3. Travel

Travel costs include mileage reimbursement and travel costs for trips to the schools in the project for recruitment and aspects of project implementation as well as travel costs for project team members to participate in team meetings. Governmental mileage reimbursement and per diem rates and appropriate modes of transportation will be used. Travel in Year 1 supports project success through encouraging project understanding and buy-in for teachers in participating schools; where possible, in-person information sessions will be held to initiate project engagement and ensure thorough understanding of project expectations and potential benefits. Estimated travel costs for Year 1 total [redacted] Specific details are provided below.

a. Travel to Project Schools

In Year 1, project staff will visit potential project schools to provide informational meetings, recruit schools and teachers to participate in the project, and support implementation of project activities. The budget includes funding to reimburse project staff for mileage to and from the school districts. Potential project schools include those within driving distance of the University of Connecticut as well as other schools at a greater distance.

We estimate that some of the districts likely to be involved in the project range in their distance from the university from 20 miles to 100 miles (one way). Using about the mid-point of

that range (60 miles one way) as an average and estimating about 3 trips in Year 1 at a mileage rate of [redacted] we estimate about [redacted] for travel to project schools in Year 1.

Project staff will also conduct informational meetings and recruit at schools in other states. Travel funds of [redacted] are requested for 4 recruitment/school connection trips in Year 1. Flight estimates are [redacted] per person. Lodging is estimated at [redacted] per night including tax for one night (total of [redacted]). Subsistence will be reimbursed at the federal per diem rate of [redacted] per day for 2 days (total of [redacted]). Transportation at each recruiting site will not exceed [redacted] per trip for trips to and from the airport as well as to schools. The total cost per recruitment trip is estimated at [redacted]

4. Equipment – N/A

5. Supplies

Supplies to be purchased for the project include instructional materials and curricular resources for classroom activities and additional resources for project support and research activities. Supplies purchased with federal funds directly benefit the grant project and are necessary for achieving the goals of the project. Estimated supply costs for Year 1 total [redacted] Specific details are provided below.

a. Instructional Materials and Curricular Resources

Project Focus will supply participating teachers with curricular resources for classroom implementation. These resources are necessary to support the project's goals of equipping teachers with materials and strategies to encourage higher-level questioning and discourse in the classroom, and to build consistency across project classrooms to support evaluation of the professional learning activities.

Participating teachers will receive Project A^3: Awesome Advanced Activities teacher guides [redacted]), student journals [redacted] 30 per participating teacher), and accompanying game cards [redacted] each). These materials will be purchased in Year 1 for the 40 teachers in Cohort 1. The total for these materials including a 5% freight is [redacted]

In addition to the Project A^3 materials, Project Focus will also supply participating teachers with *Jacob's Ladder* resources. Each teacher guide is [redacted] and will be purchased in Year 1 for the 40 teachers in Cohort 1. The total for these materials including a 5% freight is [redacted]

We anticipate allocating an additional [redacted] per classroom teacher for classroom supplies necessary for implementing project activities. These materials will include such items as manipulatives for mathematics activities and trade books to support reading and discussion activities, both connected to the A^3 and *Jacob's Ladder* resources and for additional lessons the teachers will record. The teachers will be provided with the materials for hands-on engagement during summer professional learning activities and will use the materials to implement the project in their classrooms. We estimate [redacted] for these materials to be purchased in Year 1 for Cohort 1 [redacted]

Participating teachers will also be supplied with wireless microphones to record their classroom lessons and discussions with students. The microphones cost [redacted] each, and 40 wireless microphones will be purchased in Year 1 for Cohort 1 teachers for a total of [redacted]. The recordings are necessary to support the project goal of analyzing the linguistic features of classroom questioning and discussion for the purpose of supporting increased quality in classroom discussion through professional learning activities. Ten Chromebooks will be purchased for participating teachers who do not have devices available for recording their lessons. We estimate [redacted] per Chromebook for a total of [redacted].

b. Project Materials

We request [redacted] be allocated for project supplies for additional resources required by the project team to support development and implementation of professional learning activities, classroom lessons, instruments, and other project activities, including project specific supplies (e.g., envelopes, letterhead), paper, toner cartridges, batteries, and other supporting materials

We also request an additional [redacted] for resource books (5 books at [redacted] each) for the project team to develop program materials for the project and to plan for professional learning activities to occur in Year 1 and throughout the project. These resource books will continue to be used in subsequent years.

We also request [redacted] for purchase of 3 licenses for the software package LIWC (Linguistic Inquiry and Word Count). This software is needed for the analysis of transcripts from classroom lessons to address the primary focus of the grant on understanding and supporting classroom questioning and discourse.

The project will purchase up to three laptops (approx. [redacted] for project team members to use for project work in the office including the transcribing and coding of classroom recordings and documenting teacher work during professional learning activities. Total laptop purchase in Year 1 will be [redacted]

6. Contractual

Project Focus will hire consultants to support the development and implementation of project assessments, the implementation and evaluation of professional learning activities, and the implementation of the professional learning summer workshops. All contractual hires will follow the procedures for procurement under 2 CFR 200.317-200.326. Estimated contractual costs for Year 1 total [redacted]

a. Consultants – Summer Workshops

Funds have been allocated to hire 3 consultants with specific knowledge on the development and use of the materials and strategies to be used during the project. These individuals will support implementation of professional learning workshops with the participating teachers during the summer. We have allocated [redacted] per consultant for a total of [redacted] The consultants will work for a total of 4 days [redacted]) in Year 1, including time for planning and facilitating the professional learning workshops. The consultants' knowledge of how the materials were developed and their intended implementation as well as knowledge of questioning and classroom discourse will provide the participating teachers with a deeper understanding of the materials and strategies to be used within their classrooms.

b. Consultant – Assessment Development and Implementation

Project Focus will hire a consultant to assist the research team in the development and implementation of project assessments. The consultant hired will have expertise in assessment and instrument development and a background in supporting identification and services for gifted and talented students from traditionally underserved backgrounds. The consultant will develop, refine, and analyze results from instruments relevant to project goals. The consultant will work for [redacted] per day for a total of 14 days in Year 1. The total for this consultant in Year 1 is [redacted]

c. Consultant – Implementation and Evaluation of Professional Learning Activities

Project Focus will hire a consultant to support the planning, implementation, and evaluation of professional learning activities. The consultant hired will have specific expertise in curriculum and instruction to support advanced learning and in-depth knowledge of the *Jacob's Ladder* program and its foundations linked to thinking, questioning, and discourse. The

consultant will also have a strong background in supporting professional learning and ongoing collaboration with schools. The consultant will work for [redacted] per day for a total of 9 days in Year 1. The total for this consultant in Year 1 is [redacted]

d. Travel for Project Consultants

The project consultants for Assessment Development and Implementation and for Implementation and Evaluation of Professional Learning Activities will travel in Year 1 to meet with project staff on project planning, including instrument design and curriculum review and planning activities. A total of [redacted] in travel funds are included for each consultant in Year 1. Flight estimates are [redacted] per person. Lodging is estimated at [redacted] per night including tax for three nights (total of [redacted]). Subsistence will be reimbursed at the federal per diem rate of [redacted] per day for 3 days (total of [redacted] Total estimated consultant travel in Year 1 is [redacted]

7. Construction – N/A

8. Other

Other expenses will include printing, postage, and rental of space.

1. Printing: Costs to print paperwork for the project are estimated at [redacted] in Year 1, to include printing of materials for the professional learning activities as well as other project materials (e.g., consent forms, letters and other paper communications with school districts, handouts for professional learning workshops and conferences). Cost estimates are based on 1,500 pages at .10 per page to print, collate, and bind. Although most communications are expected to be conducted electronically, some schools may prefer paper-based communication with their teachers and families, so printing may be necessary for ensuring project engagement. Further, paper-based

materials support active learning in professional learning settings including workshops and conferences.

2. Postage: [redacted] is estimated for postage costs for communication with schools in Year 1. Part of the cost estimate is based on 2 recruitment mailings (targeting extra sites while recruiting-estimated 25 envelopes per mailing) and 1 mailing per teacher (50 teachers) at [redacted] envelope for a total of [redacted] A total of [redacted] per teacher for 40 teachers) has been allocated to mail participating teachers the instructional and educational materials necessary to participate in hands-on virtual professional learning and for their classroom implementations.
3. Space Rent: Each school involved in the project will receive rental fees in return for space for storage of materials, meetings for informational sessions, professional learning activities, and follow-up learning activities. A total of [redacted] per year is budgeted. Cost estimate is based on [redacted] per school with a total of 10 schools per year.

9. Total Direct Costs

The total direct costs for Year 1 for Project Focus are [redacted] (total of categories 1-8).

10. Indirect Costs

Indirect costs have been calculated at the University's off-campus Modified Total Direct Cost (MTDC) of 26%. MTDC is Direct Costs minus certain exclusions. The rates are based on the University's federally negotiated agreement with the Department of Health and Human Services. Per federal guidelines indirect costs will not be charged to participant support costs. The total indirect costs for Year 1 are [redacted]

11. Training Stipends – N/A

12. Total Costs

The total cost for Year 1 Project Focus (total of budget categories 9-10) is [redacted]

Project Focus

University of Connecticut

Budget Narrative

October 1, 2023-September 30, 2024 (Year 2)

1. Personnel

Note: University of Connecticut's Sponsored Programs Service assumes a 5% raise increase each year for all faculty, staff, and undergraduate student workers and a 2% raise increase for graduate assistants on all grant proposals.

The total of personnel costs for all University of Connecticut faculty, staff, graduate assistants, and undergraduate student workers is [redacted] for Year 2. The total of participant support costs for Year 2 is [redacted]. The total of personnel for Year 2 is [redacted]

Senior Personnel:

Dr. Catherine Little, **Principal Investigator**. Dr. Catherine Little, Professor at the University of Connecticut, will be funded at 20% of her academic year salary (1.80 months effort) in Year 2 (annual salary of [redacted]). In addition, one month of summer support, 33.34% summer, is requested to be funded in Year 2 (3 months summer salary of [redacted]. Dr. Little's duties will include implementing project activities, recruiting participants, convening and leading meetings, leading curriculum-related project activities, and selecting and supervising staff. She will be responsible for the overall administration of the project, including oversight of budget, and assurance that the project maintains its timeline and budget and meets objectives. This leadership and supervision of the overall project, combined with Dr. Little's specific expertise, are important to ensuring that the project is successful in achieving its goals and outcomes.

Dr. Kylie Anglin, Co-Principal Investigator. Dr. Kylie Anglin, Assistant Professor at the University of Connecticut, will be funded at 12.5% of her academic year salary (1.13 months effort) in Year 2 [redacted]). In addition, one month of summer support, 33.34% summer, is requested to be funded in Year 2 (3 months summer salary of [redacted]). Dr. Anglin will lead the UConn research team in the central research component of coding and analyzing data on classroom questioning and discourse, including supporting training of graduate assistants. Dr. Anglin will also be involved in the reporting and dissemination of study findings. Dr. Anglin's expertise in using natural language processing techniques to assess program effects will help to ensure the project's success in understanding and strengthening the influence of professional learning activities on classroom questioning and discourse.

Other Personnel:

Research Associate – Dr. Kelly Kearney. Dr. Kelly Kearney will be funded at 75% (9 calendar months) in Year 2 [redacted]) to coordinate key aspects of project management and implementation. Dr. Kearney will facilitate recruiting and communicating with school personnel, organizing and implementing professional learning activities, supervising and training graduate assistants, and reporting project progress and findings. She will also coordinate aspects of project evaluation, including interpreting qualitative feedback from project participants. Dr. Kearney's experience coordinating project management and qualitative analyses will contribute to the project's success through organized implementation and thorough evaluation to ensure focus on goals and outcomes.

Graduate Assistants. In Year 2, four level two GAs (academic year salary of [redacted] will provide academic year support (9 academic months, 20 hours/week) and will provide summer support to the project for 20 hours per week (3 months effort; summer salary of [redacted]

The GA duties will include assisting senior personnel in all aspects of the project, including development of instruments and data collection and management. All project GAs will be trained in transcribing and coding classroom recordings to facilitate the analysis of classroom questioning and discourse patterns. Given the volume of recorded classroom data that will require transcribing and coding, the GA team will contribute to the project's rigorous data analysis and interpretation of findings to contribute to ongoing effective professional learning.

Undergraduate Students. Funds are requested to support 210 hours of student workers in Year 2 at [redacted] per hour (Connecticut minimum wage) for a total of [redacted]. These persons will assist in project-related tasks in the office, including preparation of materials, data entry, and transcribing recordings. Their support ensures that GAs and other personnel can attend to project tasks requiring more advanced expertise and thus support project objectives.

Executive Program Director. Lisa Muller, M.S., will serve as the Executive Program Director for 20% (2.4 months effort) of her time in Year 2 (annual salary of [redacted]). Ms. Muller will serve as the primary University of Connecticut project liaison and be responsible for the coordination and planning of all project activities including the development of project materials, coordination with project partners, support for project reporting, and the logistical oversight of the project, as well as support for budget management. Her efforts to support project logistics and budget management help to ensure that the project meets its objectives in a timely manner that the project also meets all budget and reporting requirements.

Program Specialist. Dr. Siamak Vahidi will serve as the Program Specialist for 10% (1.2 months effort) in Year 2 [redacted]). Dr. Vahidi will co-develop and maintain the project website and will provide support for technology resources, communication,

and virtual professional learning activities. He will assist with the formatting of all project-related materials. His efforts help to ensure that the project meets its dissemination goals.

Participant Support Costs

Teacher Stipends/Training Costs

Funds are requested to support project participants through stipends for their engagement in the project's professional learning activities. In Year 2, there will be 4 categories of teachers: Cohort 1 treatment, Cohort 1 comparison, Cohort 2 treatment, and Cohort 2 comparison:

- Cohort 1 treatment teachers will record 6-8 lessons and complete project instruments during the Year 2 academic year. They will also participate in professional learning workshops that will primarily take the form of discussion groups among participating teachers with facilitation from the project team. They will participate in a short summer 2024 professional learning workshop for debriefing and reflecting on project-related learning. We estimate 20 teachers in the Cohort 1 treatment group.
- Cohort 1 comparison teachers will record 6-8 lessons and complete project instruments during the Year 2 academic year. They will participate in a full professional learning workshop in summer 2024 and be reclassified as Cohort 1 delayed treatment teachers. We estimate 20 teachers in the Cohort 1 comparison group.
- The Cohort 2 treatment and comparison teachers will engage in project overview meetings, record 2 lessons each, and complete project instruments in Year 2 (spring 2024) to provide baseline data for the project. During summer 2024, Cohort 2 treatment teachers will participate in a professional learning workshop. We are estimating 20 teachers in the Cohort 2 treatment group and 20 teachers in the Cohort 2 comparison group.

The chart below illustrates the requested funding per teacher for Year 2. Stipends to teachers are based on [redacted] per hour (standard hourly rate of pay for many teachers within potentially participating districts). There will be 25 hours of professional learning activities for Cohort 1 treatment teachers and 12 hours of professional learning activities for Cohort 1 comparison teachers during the academic year. During the summer 2024 professional learning workshops, Cohort 1 treatment teachers will participate for 4 hours, Cohort 1 comparison/delayed treatment teachers will participate for 20 hours.

There will be 10 hours of participation in project activities for each group of Cohort 2 teachers in the academic year and 20 hours of participation for Cohort 2 treatment teachers during the summer for the professional learning workshops. These components of teacher participation support professional learning and the overall goals of the project.

	Year 2
Cohort 1 Treatment Group (20 teachers across participating schools during academic year) [redacted])	[redacted]
Cohort 1 Treatment Group (20 teachers across participating schools during summer) [redacted])	
Cohort 1 Comparison Group (20 teachers across participating schools during academic year) [redacted])	
Cohort 1 Comparison/Delayed Treatment Group (20 teachers across participating schools during summer) [redacted] per teacher)	
Cohort 2 Treatment Group (20 teachers across participating schools during academic year) [redacted])	

Cohort 2 Treatment Group (20 teachers across participating schools during summer) [redacted]	[redacted]
Cohort 2 Comparison Group (20 teachers across participating schools during academic year) [redacted])	[redacted]
Total	[redacted]

2. Fringe Benefits

Fringe benefit rates are negotiated with the Department of Health and Human Services as part of the University's Cost Rate Agreement and are calculated as a percentage of salaries. The following is a list of the fringe benefit rates by job title. Fringe benefits will only be charged on salaried employees at the University of Connecticut and do not apply to teacher stipends.

Senior Personnel:	**Fringe Rate %**
Principal Investigator-Based on Academic Year Salary	[redacted]
Principal Investigator-Based on 3 Month Summer Salary	[redacted]
Co-Principal Investigator-Based on Academic Year Salary	[redacted]
Co-Principal Investigator-Based on 3 Month Summer Salary	[redacted]
Other Personnel:	[redacted]
Research Associate-Based on Annual Salary	[redacted]
Graduate Assistants-Based on Academic Year Salary	[redacted]
Graduate Assistants-Based on 3 Month Summer Salary	[redacted]
Undergraduate Students-Based on Hourly Rate	[redacted]
Executive Program Director-Based on Annual Salary	[redacted]
Program Specialist-Based on Annual Salary	[redacted]

3. Travel

Travel costs include mileage reimbursement and travel costs for trips to the schools in the project for recruitment and aspects of project implementation as well as travel costs for project team members to participate in team meetings. Governmental mileage reimbursement and per diem rates and appropriate modes of transportation will be used. Travel in Year 2 supports project success through encouraging project understanding and buy-in for teachers in participating schools; where possible, in-person information sessions will be held to initiate project engagement and ensure thorough understanding of project expectations and potential benefits. Travel for the project team also facilitates project success through promoting effective collaboration. Estimated travel costs for Year 2 total [redacted]. Specific details are provided below.

a. Travel to Project Schools

In Year 2, project staff will visit potential project schools to provide informational meetings, recruit schools and teachers to participate in the project for Cohort 2, and support implementation of project activities. The budget includes funding to reimburse project staff for mileage to and from the school districts. Potential project schools include those within driving distance of the University of Connecticut as well as other schools at a greater distance.

We estimate that some of the districts likely to be involved in the project range in their distance from the university from 20 miles to 100 miles (one way). Using about the mid-point of that range (60 miles one way) as an average and estimating about 3 trips in Year 2 at a mileage rate of [redacted] we estimate about [redacted] for travel to project schools in Year 2.

Project staff will also conduct informational meetings and recruit at schools in other states. Travel funds of [redacted] are requested for 3 recruitment trips in Year 2. Flight estimates are

[redacted] per person. Lodging is estimated at [redacted] per night including tax for one night (total of [redacted]. Subsistence will be reimbursed at the federal per diem rate of [redacted] per day for 2 days (total of [redacted]. Transportation at each recruiting site will not exceed [redacted] per trip for trips to and from the airport as well as to schools. The total cost per recruitment trip is estimated at [redacted]

b. Travel for Project Team

Project staff will need to travel in Year 2 for dissemination efforts. Travel funds at the rate of [redacted] per person are included for 3 team members in Year 2. Estimates are based on travel for 3 team members to engage in planning and dissemination activities at a national conference. Flight estimates are [redacted] per person. Lodging will not exceed [redacted] per night including taxes for three nights (total of [redacted] Subsistence will be reimbursed at the federal per diem rate of [redacted] per day for 3 days (total of [redacted]). Transportation at each national conference site will not exceed [redacted] per trip for trips to and from the airport as well as to schools. (Total of [redacted] for dissemination travel.)

4. Equipment – N/A

5. Supplies

Supplies to be purchased for the project include instructional materials and curricular resources for classroom activities and additional resources for project support activities. Supplies purchased with federal funds directly benefit the grant project and are necessary for achieving the goals of the project. Estimated supply costs for Year 2 total [redacted] Specific details are provided below.

a. Instructional Materials and Curricular Resources

Project Focus will supply participating teachers with curricular resources for classroom implementation. These resources are necessary to support the project's goals of equipping

teachers with materials and strategies to encourage higher-level questioning and discourse in the classroom, and to build consistency across project classrooms to support evaluation of the professional learning activities.

Participating teachers will receive Project A^3: Awesome Advanced Activities teacher guides [redacted] student journals [redacted] each; 30 per participating teacher), and accompanying game cards [redacted] These materials will be purchased in Year 2 for the 40 teachers in Cohort 2. The total for these materials including a 5% freight is [redacted].

In addition to the Project A^3 materials, Project Focus will also supply participating teachers with *Jacob's Ladder* resources. Each teacher guide is [redacted] and will be purchased in Year 2 for the 40 teachers in Cohort 2. The total for these materials including a 5% freight is [redacted]

We anticipate allocating an additional [redacted] per classroom teacher for classroom supplies necessary for implementing project activities. These materials will include such items as manipulatives for mathematics activities and trade books to support reading and discussion activities, both connected to the A^3 and *Jacob's Ladder* resources and for additional lessons the teachers will record. The teachers will be provided with the materials for hands-on training during summer professional learning activities and will use the materials to implement the program within their classrooms. We estimate [redacted] for these materials to be purchased in Year 2 for Cohort 2 [redacted]).

Participating teachers will also be supplied with wireless microphones to record their classroom lessons and discussions with students. The microphones cost [redacted] each, and 40 wireless microphones will be purchased in Year 2 for Cohort 2 teachers for a total of [redacted]. The recordings are necessary to support the project goal of analyzing the linguistic features of

classroom questioning and discussion for the purpose of supporting increased quality in classroom discussion through professional learning activities.

The same resource books used by the project team to develop the program materials and plan for the professional learning activities will be purchased for Cohort 1 teachers for use as part of academic year professional learning activities. A total of [redacted] has been allocated for these resource books ([redacted]). The resource books will provide the Cohort 1 teachers with theoretical background information, which will assist them in implementing the project materials and strategies.

b. Program Materials

We request [redacted] be allocated for project supplies for additional resources required by the project team to support development and implementation of professional learning activities, classroom lessons, instruments, and other project activities, including project specific supplies (e.g., envelopes, letterhead), paper, toner cartridges, batteries, and other supporting materials.

6. Contractual

Project Focus will hire consultants to support the development and implementation of project assessments, the implementation and evaluation of professional learning activities, and the implementation of the professional learning summer workshops. All contractual hires will follow the procedures for procurement under 2 CFR 200.317-200.326. Estimated contractual costs for Year 2 total [redacted]

a. Consultants – Summer Workshops

Funds have been allocated to hire 3 consultants with specific knowledge on the development and use of the materials and strategies to be used during the project. These individuals will support implementation of professional learning workshops with the

participating teachers during the summer. We have allocated [redacted] per consultant for a total of [redacted] The consultants will work for a total of 4 days [redacted] in Year 2, including time for planning and facilitating the professional learning workshops. The consultants' knowledge of how the materials were developed and their intended implementation as well as knowledge of questioning and classroom discourse will provide the participating teachers with a deeper understanding of the materials and strategies to be used within their classrooms.

b. Consultant – Assessment Development and Implementation

Project Focus will hire a consultant to assist the research team in the development and implementation of project assessments. The consultant hired will have expertise in assessment and instrument development and a background in supporting identification and services for gifted and talented students from traditionally underserved backgrounds. The consultant will develop, refine, and analyze results from instruments relevant to project goals. The consultant will work for [redacted] per day for a total of 14 days in Year 2. The total for this consultant in Year 2 is [redacted]

c. Consultant – Implementation and Evaluation of Professional Learning Activities

Project Focus will hire a consultant to support the planning, implementation, and evaluation of professional learning activities. The consultant hired will have specific expertise in curriculum and instruction to support advanced learning and in-depth knowledge of the *Jacob's Ladder* program and its foundations linked to thinking, questioning, and discourse. The consultant will also have a strong background in supporting professional learning and ongoing collaboration with schools. The consultant will work for [redacted] per day for a total of 7.5 days in Year 2. The total for this consultant in Year 2 is [redacted]

d. Travel for Project Consultants

The project consultants for Assessment Development and Implementation and for Implementation and Evaluation of Professional Learning Activities will travel in Year 2 to meet with project staff on project planning, research, and evaluation activities, including instrument design and curriculum review and workshop planning activities. A total of [redacted] in travel funds are included for each consultant in Year 2. Flight estimates are [redacted] per person. Lodging is estimated at [redacted] per night including tax for three nights (total of [redacted]. Subsistence will be reimbursed at the federal per diem rate of [redacted] per day for 3 days (total of [redacted] Total estimated consultant travel in Year 2 is [redacted]

7. Construction – N/A

8. Other

Other expenses will include printing, postage, and rental of space.

1. Printing: Costs to print paperwork for the project are estimated at [redacted] in Year 2, to include printing of materials for the professional learning activities as well as other project materials (e.g., consent forms, letters and other paper communications with school districts, handouts for professional learning workshops and conferences). Cost estimates are based on 1,500 pages at .10 per page to print, collate, and bind for a total of [redacted]. Although most communications are expected to be conducted electronically, some schools may prefer paper-based communication with their teachers and families, so printing may be necessary for ensuring project engagement. Further, paper-based materials support active learning in professional learning settings including workshops and conferences. Additionally, a total of [redacted] is estimated for poster printing for dissemination of results at national conferences.

2. Postage: [redacted] is estimated for postage costs for communication with schools in Year 2. Part of the cost estimate is based on 2 recruitment mailings (targeting extra sites while recruiting-estimated 25 envelopes per mailing) and 1 mailing per teacher (80 teachers) at [redacted] teacher for 40 teachers in Cohort 2) has been allocated to mail participating teachers the instructional and educational materials necessary to participate in hands-on virtual professional learning and for their classroom implementations.
3. Space Rent: Each school involved in the project will receive rental fees in return for space for storage of materials, meetings for informational sessions, professional learning activities, and follow-up learning activities. A total of [redacted] per year is budgeted. Cost estimate is based on [redacted] per school with a total of 10 schools per year.

9. Total Direct Costs

The total direct costs for Year 2 for Project Focus are [redacted] (total of categories 1-8).

10. Indirect Costs

Indirect costs have been calculated at the University's off-campus Modified Total Direct Cost (MTDC) of 26%. MTDC is Direct Costs minus certain exclusions. The rates are based on the University's federally negotiated agreement with the Department of Health and Human Services. Per federal guidelines indirect costs will not be charged to participant support costs. The total indirect costs for Year 2 are [redacted]

11. Training Stipends – N/A

12. Total Costs

The total cost for Year 2 Project Focus (total of budget categories 9-10) is [redacted]

Project Focus

University of Connecticut

Budget Narrative

October 1, 2024-September 30, 2025 (Year 3)

1. Personnel

Note: University of Connecticut's Sponsored Programs Service assumes a [redacted] increase each year for all faculty, staff, and undergraduate student workers and a [redacted] increase for graduate assistants on all grant proposals.

The total of personnel costs for all University of Connecticut faculty, staff, graduate assistants, and undergraduate student workers is [redacted] for Year 3. The total of participant support costs for Year 3 is [redacted] The total of personnel for Year 3 is [redacted]

Senior Personnel:

Dr. Catherine Little, **Principal Investigator**. Dr. Catherine Little, Professor at the University of Connecticut, will be funded at 20% of her academic year salary (1.80 months effort) in Year 3 (annual salary of [redacted]. In addition, one month of summer support, 33.34% summer, is requested to be funded in Year 3 (3 months summer salary of [redacted] Dr. Little's duties will include implementing project activities, recruiting participants, convening and leading meetings, leading curriculum-related project activities, and selecting and supervising staff. She will be responsible for the overall administration of the project, including oversight of budget, and assurance that the project maintains its timeline and budget and meets objectives. This leadership and supervision of the overall project, combined with Dr. Little's specific expertise, are important to ensuring that the project is successful in achieving its goals and outcomes.

Dr. Kylie Anglin, Co-Principal Investigator. Dr. Kylie Anglin, Assistant Professor at the University of Connecticut, will be funded at 12.5% of her academic year salary (1.13 months effort) in Year 3 (annual salary of [redacted] In addition, one month of summer support, 33.34% summer, is requested to be funded in Year 3 (3 months summer salary of [redacted]. Dr. Anglin will lead the UConn research team in the central research component of coding and analyzing data on classroom questioning and discourse, including supporting training of graduate assistants. Dr. Anglin will also be involved in the reporting and dissemination of study findings. Dr. Anglin's expertise in using natural language processing techniques to assess program effects will help to ensure the project's success in understanding and strengthening the influence of professional learning activities on classroom questioning and discourse.

Other Personnel:

Research Associate – Dr. Kelly Kearney. Dr. Kelly Kearney will be funded at 75% (9 calendar months) in Year 3 (annual salary of [redacted] to coordinate key aspects of project management and implementation. Dr. Kearney will facilitate recruiting and communicating with school personnel, organizing and implementing professional learning activities, supervising and training graduate assistants, and reporting project progress and findings. She will also coordinate aspects of project evaluation, including interpreting qualitative feedback from project participants. Dr. Kearney's experience coordinating project management and qualitative analyses will contribute to the project's success through organized implementation and thorough evaluation to ensure focus on goals and outcomes.

Graduate Assistants. In Year 3, four level two GAs (academic year salary of [redacted] will provide academic year support (9 academic months, 20 hours/week) and will provide summer support to the project for 20 hours per week (3 months effort; summer salary of [redacted]

The GA duties will include assisting senior personnel in all aspects of the project, including development of instruments and data collection and management. All project GAs will be trained in transcribing and coding classroom recordings to facilitate the analysis of classroom questioning and discourse patterns. Given the volume of recorded classroom data that will require transcribing and coding, the GA team will contribute to the project's rigorous data analysis and interpretation of findings to contribute to ongoing effective professional learning.

Undergraduate Students. Funds are requested to support 206.75 hours of student workers in Year 3 at [redacted] per hour (estimated Connecticut minimum wage) for a total of [redacted] These persons will assist in project-related tasks in the office, including preparation of materials, data entry, and transcribing recordings. Their support ensures that GAs and other personnel can attend to project tasks requiring more advanced expertise and thus support project objectives.

Executive Program Director. Lisa Muller, M.S., will serve as the Executive Program Director for 20% (2.4 months effort) of her time in Year 3 (annual salary of [redacted]). Ms. Muller will serve as the primary University of Connecticut project liaison and be responsible for the coordination and planning of all project activities including the development of project materials, coordination with project partners, support for project reporting, and the logistical oversight of the project, as well as support for budget management. Her efforts to support project logistics and budget management help to ensure that the project meets its objectives in a timely manner that the project also meets all budget and reporting requirements.

Program Specialist. Dr. Siamak Vahidi will serve as the Program Specialist for 10% (1.2 months effort) in Year 3 [redacted] Dr. Vahidi will co-develop and maintain the project website and will provide support for technology resources, communication,

and virtual professional learning activities. He will assist with the formatting of all project-related materials. His efforts help to ensure that the project meets its dissemination goals.

Participant Support Costs

Teacher Stipends/Training Costs

Funds are requested to support project participants through stipends for their engagement in the project's professional learning activities. In Year 3, there will be 5 categories of teachers: Cohort 1 delayed treatment, Cohort 2 treatment, Cohort 2 comparison, Individualized Professional Learning (IPL) Participant, and Individualized Professional Learning (IPL) Mentor:

- Cohort 1 delayed treatment teachers and Cohort 2 treatment teachers will record 6-8 lessons and complete project instruments during the Year 3 academic year. They will also participate in professional learning workshops that will primarily take the form of discussion groups among participating teachers with facilitation from the project team. They will participate in a short summer 2025 professional learning workshop for debriefing and reflecting on project-related learning. We are estimating 18 teachers in the Cohort 1 delayed treatment group (expecting minor attrition due to the length of engagement) and 20 teachers in the Cohort 2 treatment group.
- Cohort 2 comparison teachers will record 6-8 lessons and complete project instruments during the Year 3 academic year. They will participate in a full professional learning workshop in summer 2025 and be reclassified as Cohort 2 delayed treatment teachers. We are estimating 20 teachers in the Cohort 2 comparison group.
- A total of 8 IPL participants and 8 IPL mentors will be recruited to participate in professional learning in Year 3. Of these, 3 participants and 3 mentors will participate in a pilot of these activities during the academic year. The IPL participants will record 2-3

lessons and meet with their IPL mentors following each to review and discuss feedback on linguistic features of lessons. IPL mentors will review lesson videos and provide direct feedback and support for IPL participants. Participants and mentors will provide feedback to the project team during the academic year and in a summer debriefing and reflection workshop to support planning of further IPL implementation in Year 4. The additional 5 IPL participants and 5 IPL mentors will be recruited during Year 3 for participation in full implementation in Year 4. They will participate in a summer professional learning workshop in preparation for IPL in Year 4.

The chart below illustrates the requested funding per teacher for Year 3. Stipends to teachers are based on [redacted] per hour (standard hourly rate of pay for many teachers within potentially participating districts). There will be 25 hours of professional learning activities for Cohort 1 delayed treatment teachers and Cohort 2 treatment teachers during the academic year, and there will be and 12 hours of professional learning activities for Cohort 2 comparison teachers during the academic year. During the summer 2025 professional learning workshops, Cohort 1 delayed treatment teachers and Cohort 2 treatment teachers will participate for 4 hours, and Cohort 2 comparison teachers will participate for 20 hours. IPL participants will engage in project activities for 25 hours and IPL mentors for 20 hours in the academic year (pilot group). All IPL participants and IPL mentors will participate in 4 hours of summer professional learning activities. All of these components of teacher participation support professional learning and the overall goals of the project.

	Year 3

Cohort 1 Delayed Treatment Group (18 teachers across participating schools during academic year) [redacted])	
Cohort 1 Delayed Treatment Group (18 teachers across participating schools during summer) [redacted]	
Cohort 2 Treatment Group (20 teachers across participating schools during academic year) [redacted])	
Cohort 2 Treatment Group (20 teachers across participating schools during summer) [redacted]	
Cohort 2 Comparison Group (20 teachers across participating schools during academic year) [redacted])	
Cohort 2 Comparison Group (20 teachers across participating schools during summer) [redacted])	
Individualized Professional Learning Participants (3 teachers across participating schools during academic year) [redacted]	
Individualized Professional Learning Participants (8 teachers across participating schools during summer) [redacted]	
Individualized Professional Learning Mentors (3 teachers across participating schools during academic year) [redacted]	

Individualized Professional Learning Mentors (8 teachers across participating schools during summer) [redacted]	[redacted]
Total	[redacted]

2. Fringe Benefits

Fringe benefit rates are negotiated with the Department of Health and Human Services as part of the University's Cost Rate Agreement and are calculated as a percentage of salaries. The following is a list of the fringe benefit rates by job title. Fringe benefits will only be charged on salaried employees at the University of Connecticut and do not apply to teacher stipends.

Senior Personnel:	**Fringe Rate %**
Principal Investigator-Based on Academic Year Salary	[redacted]
Principal Investigator-Based on 3 Month Summer Salary	
Co-Principal Investigator-Based on Academic Year Salary	
Co-Principal Investigator-Based on 3 Month Summer Salary	
Other Personnel:	
Research Associate-Based on Annual Salary	
Graduate Assistants-Based on Academic Year Salary	
Graduate Assistants-Based on 3 Month Summer Salary	
Undergraduate Students-Based on Hourly Rate	
Executive Program Director-Based on Annual Salary	
Program Specialist-Based on Annual Salary	

3. Travel

Travel costs include mileage reimbursement and travel costs for trips to the schools in the project for aspects of project implementation as well as travel costs for project team members to participate in team meetings. Governmental mileage reimbursement and per diem rates and appropriate modes of transportation will be used. Travel in Year 3 supports project success through encouraging project understanding and buy-in for teachers in participating schools. Travel for the project team also facilitates project success through promoting effective collaboration. Estimated travel costs for Year 3 total [redacted]. Specific details are provided below.

a. Travel to Project Schools

In Year 3, project staff will visit project schools to provide support for teachers and to implement details of the project activities. The budget includes funding to reimburse project staff for mileage to and from the school districts. Potential project schools include those within driving distance of the University of Connecticut as well as other schools at a greater distance.

We estimate that some of the districts likely to be involved in the project range in their distance from the university from 20 miles to 100 miles (one way). Using about the mid-point of that range (60 miles one way) as an average and estimating about 3 trips in Year 3 at a mileage rate of [redacted], we estimate about [redacted] for travel to project schools in Year 3.

Project staff will provide support to teachers in project schools at a greater distance in other states. Travel funds of [redacted] are requested for 3 teacher support trips in Year 3. Flight estimates are [redacted] per person. Lodging is estimated at [redacted] per night including tax for one night [redacted] Subsistence will be reimbursed at the federal per diem rate of [redacted] per day for 2 days [redacted]). Transportation at each recruiting site will not exceed [redacted] per trip for trips

to and from the airport as well as to schools. The total cost per teacher support trip is estimated at [redacted]

b. Travel for Project Team

Project staff will need to travel in Year 3 for dissemination efforts. Travel funds at the rate of [redacted] per person are included for 4 team members in Year 3. Estimates are based on travel for 4 team members to engage in planning and dissemination activities at a national conference. Flight estimates are [redacted] per person. Lodging will not exceed [redacted] per night including taxes for three nights (total of [redacted] Subsistence will be reimbursed at the federal per diem rate of [redacted] per day for 3 days (total of [redacted]). Transportation at each national conference site will not exceed [redacted] per trip for trips to and from the airport as well as to schools. (Total of [redacted] for dissemination travel.)

4. Equipment – N/A

5. Supplies

Supplies to be purchased for the project include instructional materials and curricular resources for classroom activities and additional resources for project support and research activities. Supplies purchased with federal funds directly benefit the grant project and are necessary for achieving the goals of the project. Estimated supply costs for Year 3 total [redacted] Specific details are provided below.

a. Instructional Materials and Curricular Resources

Project Focus will supply participating teachers with curricular resources for classroom implementation. These resources are necessary to support the project's goals of equipping teachers with materials and strategies to encourage higher-level questioning and discourse in the

classroom, and to build consistency across project classrooms to support evaluation of the professional learning activities.

The Individualized Professional Learning Participants will receive additional copies of the consumable Project A^3: Awesome Advanced Activities student journals [redacted] 30 per participating teacher). These materials will be purchased in Year 3 for the 8 Individualized Professional Learning Participants. The total for these materials including a 5% freight is [redacted]

We anticipate allocating an additional [redacted] per classroom teacher for classroom supplies necessary for implementing project activities. These materials will include such items as manipulatives for mathematics activities and trade books to support reading and discussion activities, both connected to the A^3 and *Jacob's Ladder* resources and for additional lessons the teachers will record. The teachers will use the materials to implement the program within their classrooms. We estimate [redacted] for these materials to be purchased in Year 3 for the Individualized Professional Learning participants ([redacted]/teacher for 8 teachers).

The same resource books used by the project team to develop the program materials and plan for the professional learning activities will be purchased for Cohort 2 teachers. A total of [redacted] has been allocated for these resource books ([redacted]). The resource books will provide the Cohort 2 teachers with theoretical background information, which will assist them in implementing the professional learning activities.

b. Program Materials

We request [redacted] be allocated for project supplies for additional resources required by the project team to support development and implementation of professional learning activities, classroom lessons, instruments, and other project activities, including project specific supplies (e.g., envelopes, letterhead), paper, toner cartridges, batteries, and other supporting materials.

We also request [redacted] for renewal of 3 licenses for the software package LIWC (Linguistic Inquiry and Word Count). This software is needed for the analysis of transcripts from classroom lessons to address the primary focus of the grant on understanding and supporting classroom questioning and discourse.

6. Contractual

Project Focus will hire consultants to support the development and implementation of project assessments, the implementation and evaluation of professional learning activities, and the implementation of the professional learning summer workshops. The project will also hire a videographer to support development of video material for the project to date, for use in further recruitment and professional learning activities. All contractual hires will follow the procedures for procurement under 2 CFR 200.317-200.326. Estimated contractual costs for Year 3 total [redacted]

a. Consultants – Summer Workshops

Funds have been allocated to hire 3 consultants with specific knowledge on the development and use of the materials and strategies to be used during the project. These individuals will support implementation of professional learning workshops with the participating teachers during the summer. We have allocated [redacted] per consultant for a total of [redacted] The consultants will work for a total of 4 days [redacted] in Year 3, including time for planning and facilitating the professional learning workshops. The consultants' knowledge of how the materials were developed and their intended implementation as well as knowledge of questioning and classroom discourse will provide the participating teachers with a deeper understanding of the materials and strategies to be used within their classrooms.

b. Consultant – Assessment Development and Implementation

Project Focus will hire a consultant to assist the research team in the development and implementation of project assessments. The consultant hired will have expertise in assessment and instrument development and a background in supporting identification and services for gifted and talented students from traditionally underserved backgrounds. The consultant will develop, refine, and analyze results from instruments relevant to project goals. The consultant will work for [redacted] per day for a total of 11.5 days in Year 3. The total for this consultant in Year 3 is [redacted]

c. Consultant – Implementation and Evaluation of Professional Learning Activities

Project Focus will hire a consultant to support the planning, implementation, and evaluation of professional learning activities. The consultant hired will have specific expertise in curriculum and instruction to support advanced learning and in-depth knowledge of the *Jacob's Ladder* program and its foundations linked to thinking, questioning, and discourse. The consultant will also have a strong background in supporting professional learning and ongoing collaboration with schools. The consultant will work for [redacted] per day for a total of 9 days in Year 3. The total for this consultant in Year 3 is [redacted]

d. Videographer

Funds have been allocated to hire a videographer to work with the project team to create a video detailing the work of the project including interviews from participating teachers on how the project has enhanced their teaching and assisted them in recognizing and supporting gifted and talented learners, including those from traditionally underserved populations including those with disabilities. The video will be shared with participating schools and districts. The final video is estimated to be 10 minutes in length and will cost [redacted] per finished minute for videotaping and editing).

e. Travel for Project Consultants

The project consultants for Assessment Development and Implementation and for Implementation and Evaluation of Professional Learning Activities will travel in Year 3 to meet with project staff on project planning, research, evaluation, and dissemination activities, including instrument review, planning for professional learning, and conference presentation and writing development. A total of [redacted] in travel funds are included for each consultant in Year 3, representing 2 trips per consultant. Flight estimates are [redacted] per person. Lodging is estimated at [redacted] per night including tax for three nights (total of [redacted]. Subsistence will be reimbursed at the federal per diem rate of [redacted] per day for 3 days (total of [redacted]. Total estimated consultant travel in Year 3 is [redacted]

7. Construction – N/A

8. Other

Other expenses will include printing, postage, and rental of space.

1. Printing: Costs to print paperwork for the project are estimated at [redacted] in Year 3, to include printing of materials for the professional learning activities as well as other project materials (e.g., consent forms, letters and other paper communications with school districts, handouts for professional learning workshops and conferences). Cost estimates are based on 750 pages at [redacted] page to print, collate, and bind for a total of [redacted]. Although most communications are expected to be conducted electronically, some schools may prefer paper-based communication with their teachers and families, so printing may be necessary for ensuring project engagement. Further, paper-based materials support active learning in professional learning settings

including workshops and conferences. A total of [redacted] is estimated for poster printing for dissemination of results at national conferences.

2. Postage: [redacted] is estimated for postage costs for communication with schools in Year 3. Part of the cost estimate is based on 1 mailing per teacher (8 teachers) at [redacted] per teacher for 8 teachers) has been allocated to mail participating teachers the instructional and educational materials necessary to participate in hands-on virtual professional learning and for classroom implementation.
3. Space Rent: Each school involved in the project will receive rental fees in return for space for storage of materials, meetings for informational sessions, professional learning activities, and follow-up learning activities. A total of [redacted] per year is budgeted. Cost estimate is based on [redacted] per school with a total of 10 schools per year.

9. Total Direct Costs

The total direct costs for Year 3 for Project Focus are [redacted] (total of categories 1-8).

10. Indirect Costs

Indirect costs have been calculated at the University's off-campus Modified Total Direct Cost (MTDC) of 26%. MTDC is Direct Costs minus certain exclusions. The rates are based on the University's federally negotiated agreement with the Department of Health and Human Services. Per federal guidelines indirect costs will not be charged to participant support costs. The total indirect costs for Year 3 are [redacted]

11. Training Stipends – N/A

12. Total Costs

The total cost for Year 3 Project Focus (total of budget categories 9-10) is [redacted]

Project Focus

University of Connecticut

Budget Narrative

October 1, 2025-September 30, 2026 (Year 4)

1. Personnel

Note: University of Connecticut's Sponsored Programs Service assumes a 5% raise increase each year for all faculty, staff, and undergraduate student workers and a 2% raise increase for graduate assistants on all grant proposals.

The total of personnel costs for all University of Connecticut faculty, staff, graduate assistants, and undergraduate student workers is [redacted] for Year 4. The total of participant support costs for Year 4 is [redacted] The total of personnel for Year 4 is [redacted]

Senior Personnel:

Dr. Catherine Little, **Principal Investigator**. Dr. Catherine Little, Professor at the University of Connecticut, will be funded at 20% of her academic year salary (1.80 months effort) in Year 4 [redacted]). In addition, one month of summer support, 33.34% summer, is requested to be funded in Year 4 (3 months summer salary of [redacted]). Dr. Little's duties will include implementing project activities, recruiting participants, convening and leading meetings, leading curriculum-related project activities, and selecting and supervising staff. She will be responsible for the overall administration of the project, including oversight of budget, and assurance that the project maintains its timeline and budget and meets objectives. This leadership and supervision of the overall project, combined with Dr. Little's specific expertise, are important to ensuring that the project is successful in achieving its goals and outcomes.

Dr. Kylie Anglin, Co-Principal Investigator. Dr. Kylie Anglin, Assistant Professor at the University of Connecticut, will be funded at 12.5% of her academic year salary (1.13 months effort) in Year 4 (annual salary of [redacted]). In addition, one month of summer support, 33.34% summer, is requested to be funded in Year 4 (3 months summer salary of [redacted]). Dr. Anglin will lead the UConn research team in the central research component of coding and analyzing data on classroom questioning and discourse, including supporting training of graduate assistants. Dr. Anglin will also be involved in the reporting and dissemination of study findings. Dr. Anglin's expertise in using natural language processing techniques to assess program effects will help to ensure the project's success in understanding and strengthening the influence of professional learning activities on classroom questioning and discourse.

Other Personnel:

Research Associate – Dr. Kelly Kearney. Dr. Kelly Kearney will be funded at 75% (9 calendar months) in Year 4 (annual salary of [redacted]) to coordinate key aspects of project management and implementation. Dr. Kearney will facilitate recruiting and communicating with school personnel, organizing and implementing professional learning activities, supervising and training graduate assistants, and reporting project progress and findings. She will also coordinate aspects of project evaluation, including interpreting qualitative feedback from project participants. Dr. Kearney's experience coordinating project management and qualitative analyses will contribute to the project's success through organized implementation and thorough evaluation to ensure focus on goals and outcomes.

Graduate Assistants. In Year 4, four level two GAs (academic year salary of [redacted]) will provide academic year support (9 academic months, 20 hours/week) and will provide summer support to the project for 20 hours per week (3 months effort; summer salary [redacted]

The GA duties will include assisting senior personnel in all aspects of the project, including development of instruments and data collection and management. All project GAs will be trained in transcribing and coding classroom recordings to facilitate the analysis of classroom questioning and discourse patterns. Given the volume of recorded classroom data that will require transcribing and coding, the GA team will contribute to the project's rigorous data analysis and interpretation of findings to contribute to ongoing effective professional learning.

Undergraduate Students. Funds are requested to support 204.29 hours of student workers in Year 4 at [redacted] per hour (estimated Connecticut minimum wage) for a total of [redacted]. These persons will assist in project-related tasks in the office, including preparation of materials, data entry, and transcribing recordings. Their support ensures that GAs and other personnel can attend to project tasks requiring more advanced expertise and thus support project objectives.

Executive Program Director. Lisa Muller, M.S., will serve as the Executive Program Director for 20% (2.4 months effort) of her time in Year 4 [redacted]). Ms. Muller will serve as the primary University of Connecticut project liaison and be responsible for the coordination and planning of all project activities including the development of project materials, coordination with project partners, support for project reporting, and the logistical oversight of the project, as well as support for budget management. Her efforts to support project logistics and budget management help to ensure that the project meets its objectives in a timely manner that the project also meets all budget and reporting requirements.

Program Specialist. Dr. Siamak Vahidi will serve as the Program Specialist for 10% (1.2 months effort) in Year 4 (annual salary of [redacted]). Dr. Vahidi will co-develop and maintain the project website and will provide support for technology resources, communication,

and virtual professional learning activities. He will assist with the formatting of all project-related materials. His efforts help to ensure that the project meets its dissemination goals.

Participant Support Costs

Teacher Stipends/Training Costs

Funds are requested to support project participants through stipends for their engagement in the project's professional learning activities. In Year 4, there will be 4 categories of teachers: Cohort 2 delayed treatment, Individualized Professional Learning (IPL) Participant, Individualized Professional Learning (IPL) Mentor, and Summer Workshop:

- Cohort 2 delayed treatment teachers will record 6-8 lessons and complete project instruments during the Year 4 academic year. They will also participate in professional learning workshops that will primarily take the form of discussion groups among participating teachers with facilitation from the project team. They will participate in a short summer 2026 professional learning workshop for debriefing and reflecting on project-related learning. We are estimating 18 teachers in the Cohort 2 delayed treatment group (expecting minor attrition due to the length of engagement).
- IPL participants will record 6-8 lessons and meet with their IPL mentors following each to review and discuss feedback on linguistic features of lessons. IPL mentors will review lesson videos and provide direct feedback and support for IPL participants. Participants and mentors will provide feedback to the project team during the academic year and in a summer debriefing and reflection workshop to support documentation of the IPL process. We estimate 5 IPL participants and 5 IPL mentors in Year 4.
- Teachers from multiple districts both regionally and nationally will be recruited to participate in summer professional learning workshops in Year 4. Several workshops will

be held in different regions to support collaborative participation from teachers. Teachers will engage in professional learning activities and complete project instruments during the summer and will be invited to continue participation in professional learning into Year 5. We estimate 75 summer workshop participants in Year 4.

The chart below illustrates the requested funding per teacher for Year 4. Stipends to teachers are based on [redacted] per hour (standard hourly rate of pay for many teachers within potentially participating districts). There will be 25 hours of professional learning activities for Cohort 2 delayed treatment teachers during the academic year and 4 hours of professional learning activities during the summer. IPL participants will engage in project activities for 25 hours and IPL mentors for 20 hours in the academic year. All IPL participants and IPL mentors will participate in 4 hours of summer professional learning activities. Summer workshop teachers will participate in 10 hours of professional learning All of these components of teacher participation support professional learning and the overall goals of the project.

	Year 4
Cohort 2 Delayed Treatment Group (18 teachers across participating schools during academic year) [redacted])	[redacted]
Cohort 2 Delayed Treatment Group (18 teachers across participating schools during summer) [redacted])	
Individualized Professional Learning Participants (5 teachers across participating schools during academic year) ($[redacted]	

Individualized Professional Learning Participants (5 teachers across participating schools during summer) [redacted]	[redacted]
Individualized Professional Learning Mentors (5 teachers across participating schools during academic year) [redacted]	
Individualized Professional Learning Mentors (5 teachers across participating schools during summer) [redacted])	
Summer Workshop Participants (75 teachers) [redacted]	
Total	

2. Fringe Benefits

Fringe benefit rates are negotiated with the Department of Health and Human Services as part of the University's Cost Rate Agreement and are calculated as a percentage of salaries. The following is a list of the fringe benefit rates by job title. Fringe benefits will only be charged on salaried employees at the University of Connecticut and do not apply to teacher stipends.

Senior Personnel:	**Fringe Rate %**
Principal Investigator-Based on Academic Year Salary	[redacted]
Principal Investigator-Based on 3 Month Summer Salary	
Co-Principal Investigator-Based on Academic Year Salary	
Co-Principal Investigator-Based on 3 Month Summer Salary	
Other Personnel:	
Research Associate-Based on Annual Salary	

Graduate Assistants-Based on Academic Year Salary		[redacted]	
Graduate Assistants-Based on 3 Month Summer Salary			
Undergraduate Students-Based on Hourly Rate			
Executive Program Director-Based on Annual Salary			
Program Specialist-Based on Annual Salary			

3. Travel

Travel costs include mileage reimbursement and travel costs for trips to the schools in the project for aspects of project implementation as well as travel costs for project team members to participate in team meetings. Governmental mileage reimbursement and per diem rates and appropriate modes of transportation will be used. Travel in Year 4 supports project success through encouraging project understanding and buy-in for teachers in participating schools. Travel for the project team also facilitates project success through promoting effective collaboration. Travel stipends will also be provided to the participating teachers to attend the summer professional learning workshop in Year 4. Estimated travel costs for Year 4 total [redacted] Specific details are provided below.

a. Travel to Project Schools

In Year 4, project staff will visit multiple locations to facilitate professional learning workshops in the summer. Travel funds of [redacted] are requested for 2 professional learning workshop trips for teachers in Year 4. The professional learning workshops will be conducted by 2 Project Focus research team members. Flight estimates are [redacted] per person. Lodging is estimated at [redacted] per night including tax for two nights ([redacted]). Subsistence will be reimbursed at the federal per diem rate of [redacted] per day for 2 days [redacted]). Transportation

at each recruiting site will not exceed [redacted] per trip for trips to and from the airport as well as to schools. The total cost per professional learning workshop trip is estimated at [redacted] per research team member.

b. Travel for Project Team

Project staff will need to travel in Year 4 for dissemination efforts. Travel funds at the rate of [redacted] per person are included for 3 team members in Year 4. Estimates are based on travel for 3 team members to engage in planning and dissemination activities at a national conference. Flight estimates are [redacted] per person. Lodging will not exceed [redacted] per night including taxes for three nights (total of [redacted]). Subsistence will be reimbursed at the federal per diem rate of [redacted] per day for 3 days (total of [redacted]. Transportation at each national conference site will not exceed [redacted] per trip for trips to and from the airport as well as to schools. (Total of [redacted] for dissemination travel.)

c. Travel for Participants

The summer workshop teachers will participate will receive a travel stipend of up to [redacted] to attend the summer workshop. Project Focus estimates 75 teachers will attend the summer professional learning for a total of [redacted] in Year 4.

4. Equipment – N/A

5. Supplies

Supplies to be purchased for the project include instructional materials and curricular resources for classroom activities and additional resources for project support activities. Supplies purchased with federal funds directly benefit the grant project and are necessary for achieving the goals of the project. Estimated supply costs for Year 4 total [redacted] Specific details are provided below.

a. Instructional Materials and Curricular Resources

Project Focus will supply participating teachers with curricular resources for classroom implementation. These resources are necessary to support the project's goals of equipping teachers with materials and strategies to encourage higher-level questioning and discourse in the classroom, and to build consistency across project classrooms to support evaluation of the professional learning activities.

Participating teachers will receive Project A^3: Awesome Advanced Activities teacher guides [redacted] student journals [redacted] and accompanying game cards [redacted] These materials will be purchased in Year 4 for the 75 participating teachers. The total for these materials including a [redacted].

In addition to the Project A^3 materials, Project Focus will also supply participating teachers with *Jacob's Ladder* resources. Each teacher guide is [redacted] and will be purchased in Year 4 for the 75 participating teachers. The total for these materials including a [redacted]

We anticipate allocating an additional [redacted] per classroom teacher for classroom supplies necessary for implementing project activities. These materials will include such items as manipulatives for mathematics activities and trade books to support reading and discussion activities. The teachers will use the materials to implement the program in their classrooms. We estimate [redacted] for these materials to be purchased in Year 4 for the Summer Workshop participants [redacted]).

The same resource books used by the project team to develop the program materials and plan for the professional learning activities will be purchased for 75 participating summer workshop teachers. A total of [redacted] has been allocated for these resource books (75 books at

[redacted]). The resource books will provide the participating teachers with theoretical background information, which will assist them in implementing project learning.

b. Program Materials

We request [redacted] be allocated for project supplies for additional resources required by the project team to support development and implementation of professional learning activities, classroom lessons, instruments, and other project activities, including project specific supplies (e.g., envelopes, letterhead), paper, toner cartridges, batteries, and other supporting materials The project will also hire a videographer to support development of video material for the project to date, for use in further recruitment and professional learning activities.

6. Contractual

Project Focus will hire consultants to support the development and implementation of project assessments, the implementation and evaluation of professional learning activities, and the implementation of the professional learning summer workshops. All contractual hires will follow the procedures for procurement under 2 CFR 200.317-200.326. Estimated contractual costs for Year 4 total [redacted]

a. Consultants – Summer Workshops

Funds have been allocated to hire 3 consultants with specific knowledge on the development and use of the materials and strategies to be used during the project. These individuals will support implementation of professional learning workshops with the participating teachers during the summer. We have allocated [redacted] per consultant for a total of [redacted] The consultants will work for a total of 4 days ([redacted] per day) in Year 4, including time for planning and facilitating the professional learning workshops. The consultants' knowledge of how the materials were developed and their intended implementation as well as knowledge of

questioning and classroom discourse will provide the participating teachers with a deeper understanding of the materials and strategies to be used within their classrooms.

b. Consultant – Assessment Development and Implementation

Project Focus will hire a consultant to assist the research team in the development and implementation of project assessments. The consultant hired will have expertise in assessment and instrument development and a background in supporting identification and services for gifted and talented students from traditionally underserved backgrounds. The consultant will develop, refine, and analyze results from instruments relevant to project goals. The consultant will work for [redacted]0 per day for a total of 11.5 days in Year 4. The total for this consultant in Year 4 is [redacted]

c. Consultant – Implementation and Evaluation of Professional Learning Activities

Project Focus will hire a consultant to support the planning, implementation, and evaluation of professional learning activities. The consultant hired will have specific expertise in curriculum and instruction to support advanced learning and in-depth knowledge of the *Jacob's Ladder* program and its foundations linked to thinking, questioning, and discourse. The consultant will also have a strong background in supporting professional learning and ongoing collaboration with schools. The consultant will work for [redacted] per day for a total of 7.5 days in Year 4. The total for this consultant in Year 4 is [redacted]

d. Travel for Project Consultants

The project consultants for Assessment Development and Implementation and for Implementation and Evaluation of Professional Learning Activities will travel in Year 4 to meet with project staff on project planning, research, evaluation, and dissemination activities, including instrument review, planning for professional learning, and conference presentation and

writing development. A total of [redacted] in travel funds are included for each consultant in Year 4. Flight estimates are [redacted] per person. Lodging is estimated at [redacted] per night including tax for three nights ([redacted]). Subsistence will be reimbursed at the federal per diem rate of [redacted] per day for 3 days (total of [redacted]). Total estimated consultant travel in Year 4 is [redacted]

7. Construction – N/A

8. Other

Other expenses will include printing, postage, and rental of space.

1. Printing: Costs to print paperwork for the project are estimated at [redacted] in Year 4 to include printing of materials for the professional learning activities as well as other project materials (e.g., consent forms, letters and other paper communications with school districts, handouts for professional learning workshops and conferences). Cost estimates are based on 750 pages at .10 per page to print, collate, and bind for a total of [redacted] Although most communications are expected to be conducted electronically, some schools may prefer paper-based communication with their teachers and families, so printing may be necessary for ensuring project engagement. Further, paper-based materials support active learning in professional learning settings including workshops and conferences. A total of [redacted] is estimated for poster printing for dissemination of results at national conferences.
2. Postage: A total of [redacted]) has been allocated to mail participating teachers the instructional and educational materials necessary to participate in hands-on professional learning and for their classroom implementations.
3. Space Rent: Each school involved in the project will receive rental fees in return for space for storage of materials, meetings for informational sessions, professional learning

activities, and follow-up learning activities. A total of [redacted] per year is budgeted. Cost estimate is based on [redacted] per school with a total of 10 schools per year.

9. Total Direct Costs

The total direct costs for Year 4 for Project Focus are [redacted] (total of categories 1-8).

10. Indirect Costs

Indirect costs have been calculated at the University's off-campus Modified Total Direct Cost (MTDC) of 26%. MTDC is Direct Costs minus certain exclusions. The rates are based on the University's federally negotiated agreement with the Department of Health and Human Services. Per federal guidelines indirect costs will not be charged to participant support costs. The total indirect costs for Year 4 are [redacted]

11. Training Stipends – N/A

12. Total Costs

The total cost for Year 4 Project Focus (total of budget categories 9-10) is [redacted]

Project Focus

University of Connecticut

Budget Narrative

October 1, 2026-September 30, 2027 (Year 5)

1. Personnel

Note: University of Connecticut's Sponsored Programs Service assumes a [redacted] increase each year for all faculty, staff, and undergraduate student workers and a [redacted] increase for graduate assistants on all grant proposals.

The total of personnel costs for all University of Connecticut faculty, staff, graduate assistants, and undergraduate student workers is [redacted] for Year 5. The total of participant support costs for Year 5 is [redacted]. The total of personnel for Year 5 is [redacted]

Senior Personnel:

Dr. Catherine Little, **Principal Investigator**. Dr. Catherine Little, Professor at the University of Connecticut, will be funded at 20% of her academic year salary (1.80 months effort) in Year 5 [redacted]). In addition, one month of summer support, 33.34% summer, is requested to be funded in Year 5 (3 months summer salary of [redacted]). Dr. Little's duties will include implementing project activities, recruiting participants, convening and leading meetings, leading curriculum-related project activities, and selecting and supervising staff. She will be responsible for the overall administration of the project, including oversight of budget, and assurance that the project maintains its timeline and budget and meets objectives. This leadership and supervision of the overall project, combined with Dr. Little's specific expertise, are important to ensuring that the project is successful in achieving its goals and outcomes.

Dr. Kylie Anglin, Co-Principal Investigator. Dr. Kylie Anglin, Assistant Professor at the University of Connecticut, will be funded at 12.5% of her academic year salary (1.13 months effort) in Year 5 [redacted]). In addition, one month of summer support, 33.34% summer, is requested to be funded in Year 5 (3 months summer salary of [redacted]. Dr. Anglin will lead the UConn research team in the central research component of coding and analyzing data on classroom questioning and discourse, including supporting training of graduate assistants. Dr. Anglin will also be involved in the reporting and dissemination of study findings. Dr. Anglin's expertise in using natural language processing techniques to assess program effects will help to ensure the project's success in understanding and strengthening the influence of professional learning activities on classroom questioning and discourse.

Other Personnel:

Research Associate – Dr. Kelly Kearney. Dr. Kelly Kearney will be funded at 75% (9 calendar months) in Year 5 [redacted]) to coordinate key aspects of project management and implementation. Dr. Kearney will facilitate recruiting and communicating with school personnel, organizing and implementing professional learning activities, supervising and training graduate assistants, and reporting project progress and findings. She will also coordinate aspects of project evaluation, including interpreting qualitative feedback from project participants. Dr. Kearney's experience coordinating project management and qualitative analyses will contribute to the project's success through organized implementation and thorough evaluation to ensure focus on goals and outcomes.

Graduate Assistants. In Year 5, four level two GAs (academic year salary of [redacted]) will provide academic year support (9 academic months, 20 hours/week) and will provide summer support to the project for 20 hours per week (3 months effort; summer salary of [redacted]

The GA duties will include assisting senior personnel in all aspects of the project, including development of instruments and data collection and management. All project GAs will be trained in transcribing and coding classroom recordings to facilitate the analysis of classroom questioning and discourse patterns. Given the volume of recorded classroom data that will require transcribing and coding, the GA team will contribute to the project's rigorous data analysis and interpretation of findings to contribute to ongoing effective professional learning.

Undergraduate Students. Funds are requested to support 202.61 hours of student workers in Year 5 at [redacted] per hour (estimated Connecticut minimum wage) for a total of [redacted]. These persons will assist in project-related tasks in the office, including preparation of materials, data entry, and transcribing recordings. Their support ensures that GAs and other personnel can attend to project tasks requiring more advanced expertise and thus support project objectives.

Executive Program Director. Lisa Muller, M.S., will serve as the Executive Program Director for 20% (2.4 months effort) of her time in Year 5 [redacted] Ms. Muller will serve as the primary University of Connecticut project liaison and be responsible for the coordination and planning of all project activities including the development of project materials, coordination with project partners, support for project reporting, and the logistical oversight of the project, as well as support for budget management. Her efforts to support project logistics and budget management help to ensure that the project meets its objectives in a timely manner that the project also meets all budget and reporting requirements.

Program Specialist. Dr. Siamak Vahidi will serve as the Program Specialist for 10% (1.2 months effort) in Year 5 ([redacted] Dr. Vahidi will co-develop and maintain the project website and will provide support for technology resources, communication,

and virtual professional learning activities. He will assist with the formatting of all project-related materials. His efforts help to ensure that the project meets its dissemination goals.

Participant Support Costs

Teacher Stipends/Training Costs

Funds are requested to support project participants through stipends for their engagement in the project's professional learning activities. In Year 5, there will be 2 categories of teachers: Year 4 Summer Workshop participants, and Year 5 Summer Workshop participants:

- Teachers who participated in summer professional learning with the project in Year 4 will be invited to continue to engage in project-related professional learning activities, including engaging in follow-up workshops and discussions and sharing reflections as they implement project materials. We estimate that 60 teachers from this group will continue their participation with the project.
- Teachers from multiple districts both regionally and nationally will be recruited to participate in summer professional learning workshops in Year 5. Several workshops will be held in different regions to support collaborative participation from teachers. Teachers will engage in professional learning activities and complete project instruments during the summer. We estimate 75 summer workshop participants in Year 5.

The chart below illustrates the requested funding per teacher for Year 5. Stipends to teachers are based on [redacted] per hour (standard hourly rate of pay for many teachers within potentially participating districts). There will be 3 hours of professional learning activities for the Year 4 Summer Workshop participants during Year 5. Year 5 summer workshop teachers will participate in 10 hours of professional learning. All of these components of teacher participation support professional learning and the overall goals of the project.

	Year 5
Year 4 Summer Workshop Participants (continuing; 60 teachers during the academic year) [redacted]	[redacted]
Year 5 Summer Workshop Participants (75 teachers) [redacted]	[redacted]
Total	[redacted]

2. Fringe Benefits

Fringe benefit rates are negotiated with the Department of Health and Human Services as part of the University's Cost Rate Agreement and are calculated as a percentage of salaries. The following is a list of the fringe benefit rates by job title. Fringe benefits will only be charged on salaried employees at the University of Connecticut and do not apply to teacher stipends.

Senior Personnel:	**Fringe Rate %**
Principal Investigator-Based on Academic Year Salary	[redacted]
Principal Investigator-Based on 3 Month Summer Salary	[redacted]
Co-Principal Investigator-Based on Academic Year Salary	[redacted]
Co-Principal Investigator-Based on 3 Month Summer Salary	[redacted]
Other Personnel:	[redacted]
Research Associate-Based on Annual Salary	[redacted]
Graduate Assistants-Based on Academic Year Salary	[redacted]
Graduate Assistants-Based on 3 Month Summer Salary	[redacted]
Undergraduate Students-Based on Hourly Rate	[redacted]
Executive Program Director-Based on Annual Salary	[redacted]

Program Specialist-Based on Annual Salary	[redacted]

3. Travel

Travel costs include mileage reimbursement and travel costs for trips to the schools in the project for aspects of project implementation as well as travel costs for project team members to participate in team meetings. Governmental mileage reimbursement and per diem rates and appropriate modes of transportation will be used. Travel in Year 5 supports project success through encouraging project understanding and buy-in for teachers in participating schools. Travel for the project team also facilitates project success through promoting effective collaboration. Travel stipends will also be provided to the participating teachers to attend the summer professional learning workshop in Year 5. Estimated travel costs for Year 5 total [redacted] Specific details are provided below.

a. Travel to Project Schools

In Year 5, project staff will visit multiple locations to facilitate professional learning workshops in the summer. Travel funds of [redacted] are requested for 2 professional learning workshop trips for teachers in Year 5. The professional learning workshops will be facilitated by 2 Project Focus research team members. Flight estimates are [redacted] per person. Lodging is estimated at [redacted] per night including tax for two nights [redacted]). Subsistence will be reimbursed at the federal per diem rate of [redacted] per day for 2 days [redacted] Transportation at each recruiting site will not exceed [redacted] per trip for trips to and from the airport as well as to schools. The total cost per professional learning workshop trip is estimated at [redacted] per research team member.

b. Travel for Project Team

Project staff will need to travel in Year 5 for dissemination efforts. Travel funds at the rate of [redacted] per person are included for 3 team members in Year 5. Estimates are based on travel for 3 team members to engage in planning and dissemination activities at a national conference. Flight estimates are [redacted] per person. Lodging will not exceed [redacted] per night including taxes for three nights (total of [redacted]). Subsistence will be reimbursed at the federal per diem rate of [redacted] per day for 3 days ([redacted]). Transportation at each national conference site will not exceed [redacted] per trip for trips to and from the airport as well as to schools. (Total of [redacted] for dissemination travel.)

c. Travel for Participants

The summer workshop teachers will participate will receive a travel stipend of up to [redacted] to attend the summer workshop. Project Focus estimates 75 teachers will attend the summer professional learning for a total of [redacted] in Year 5.

4. Equipment – N/A

5. Supplies

Supplies to be purchased for the project include instructional materials and curricular resources for classroom activities and additional resources for project support activities. Supplies purchased with federal funds directly benefit the grant project and are necessary for achieving the goals of the project. Estimated supply costs for Year 5 [redacted]. Specific details are provided below.

a. Instructional Materials and Curricular Resources

Project Focus will supply participating teachers with curricular resources for classroom implementation. These resources are necessary to support the project's goals of equipping teachers with materials and strategies to encourage higher-level questioning and discourse in the

classroom, and to build consistency across project classrooms to support evaluation of the professional learning activities.

Participating teachers will receive Project A^3: Awesome Advanced Activities teacher guides [redacted]), student journals [redacted]), and accompanying game cards ([redacted] each). These materials will be purchased in Year 5 for the 75 participating teachers. The total for these materials including a [redacted].

In addition to the Project A^3 materials, Project Focus will also supply participating teachers with *Jacob's Ladder* resources. Each teacher guide is [redacted] and will be purchased in Year 5 for the 75 participating teachers. The total for these materials including a [redacted]

We anticipate allocating an additional [redacted] per classroom teacher for classroom supplies necessary for implementing project activities. These materials will include such items as manipulatives for mathematics activities and trade books to support reading and discussion activities, both connected to the A^3 and *Jacob's Ladder* resources and for additional lessons the teachers will record. The teachers will use the materials to implement the program within their classrooms. We estimate [redacted] for these materials to be purchased in Year 5 for the Summer Workshop participants [redacted]

The same resource books used by the project team to develop the program materials and plan for the professional learning activities will be purchased for 75 participating teachers. A total of [redacted] has been allocated for these resource books ([redacted]). The resource books will provide the participating teachers with theoretical background information, which will assist them in implementing project learning.

b. Program Materials

We request [redacted] be allocated for project supplies for additional resources required by the project team to support development and implementation of professional learning activities, classroom lessons, instruments, and other project activities, including project specific supplies (e.g., envelopes, letterhead), paper, toner cartridges, batteries, and other supporting materials.

6. Contractual

Project Focus will hire consultants to support the development and implementation of project assessments, the implementation and evaluation of professional learning activities, and the implementation of the professional learning summer workshops. All contractual hires will follow the procedures for procurement under 2 CFR 200.317-200.326. Estimated contractual costs for Year 5 total [redacted].

a. Consultants – Summer Workshops

Funds have been allocated to hire 3 consultants with specific knowledge on the development and use of the materials and strategies to be used during the project. These individuals will support implementation of professional learning workshops with the participating teachers during the summer. We have allocated [redacted] per consultant for a total of [redacted] The consultants will work for a total of 4 days [redacted] in Year 5, including time for planning and facilitating the professional learning workshops. The consultants' knowledge of how the materials were developed and their intended implementation as well as knowledge of questioning and classroom discourse will provide the participating teachers with a deeper understanding of the materials and strategies to be used within their classrooms.

b. Consultant – Assessment Development and Implementation

Project Focus will hire a consultant to assist the research team in the development and implementation of project assessments. The consultant hired will have expertise in assessment

and instrument development and a background in supporting identification and services for gifted and talented students from traditionally underserved backgrounds. The consultant will develop, refine, and analyze results from instruments relevant to project goals. The consultant will work for [redacted] per day for a total of 14 days in Year 5. The total for this consultant in Year 5 is [redacted]

c. Consultant – Implementation and Evaluation of Professional Learning Activities

Project Focus will hire a consultant to support the planning, implementation, and evaluation of professional learning activities. The consultant hired will have specific expertise in curriculum and instruction to support advanced learning and in-depth knowledge of the *Jacob's Ladder* program and its foundations linked to thinking, questioning, and discourse. The consultant will also have a strong background in supporting professional learning and ongoing collaboration with schools. The consultant will work for [redacted] per day for a total of 9 days in Year 5. The total for this consultant in Year 5 is [redacted]

d. Travel for Project Consultants

The project consultants for Assessment Development and Implementation and for Implementation and Evaluation of Professional Learning Activities will travel in Year 5 to meet with project staff on project planning, research, evaluation, and dissemination activities, including instrument review, planning for professional learning, and conference presentation and writing development. A total of [redacted] in travel funds are included for each consultant in Year 5. Flight estimates are [redacted] per person. Lodging is estimated at [redacted] per night including tax for three nights ([redacted]). Subsistence will be reimbursed at the federal per diem rate of [redacted] per day for 3 days ([redacted] Total estimated consultant travel in Year 5 is [redacted]

7. Construction – N/A

8. Other

Other expenses will include printing, postage, and rental of space.

1. Printing: Costs to print paperwork for the project are estimated at [redacted] Year 5, to include printing of materials for the professional learning activities as well as other project materials (e.g., consent forms, letters and other paper communications with school districts, handouts for professional learning workshops and conferences). Cost estimates are based on 750 pages at .10 per page to print, collate, and bind for a total of [redacted] Although most communications are expected to be conducted electronically, some schools may prefer paper-based communication, so printing may be necessary for ensuring project engagement. Further, paper-based materials support active learning in professional learning settings including workshops and conferences. A total of [redacted] is estimated for poster printing for dissemination of results at national conferences.
2. Postage: A total of [redacted] per teacher for 75 teachers) has been allocated to mail participating teachers the instructional and educational materials necessary to participate in hands-on professional learning and for classroom implementation.
3. Space Rent: Schools involved in the project will receive rental fees in return for space for professional learning activities. A total of [redacted] is budgeted in Year 5 because of decreased academic year project-specific activities compared to prior years. Cost estimate is based on [redacted] per school with a total of 10 schools.

9. Total Direct Costs

The total direct costs for Year 5 for Project Focus are [redacted] (total of categories 1-8).

10. Indirect Costs

Indirect costs have been calculated at the University's off-campus Modified Total Direct Cost (MTDC) of 26%. MTDC is Direct Costs minus certain exclusions. The rates are based on the University's federally negotiated agreement with the Department of Health and Human Services. Per federal guidelines indirect costs will not be charged to participant support costs. The total indirect costs for Year 5 are [redacted]

11. Training Stipends – N/A

12. Total Costs

The total cost for Year 5 Project Focus (total of budget categories 9-10) is [redacted]. The total costs for Years 1-5 for Project Focus (total of budget categories 9-10 across all 5 years) are [redacted]

OMB Number: 1894-0017
Expiration Date: 07/31/2023

U.S. Department of Education
Grant Application Form for Project Objectives and Performance Measures Information

See Instructions.

Applicant Information

Legal Name:

University of Connecticut

1. Project Objective:

To support increased quality in observed classroom instruction with focus on questioning and discussion.

1.a. Performance Measure	Measure Type	Quantitative Data			
		Target			
		Raw Number	Ratio		%
At least 70% of teachers in the treatment group will show increases in Instructional Quality Assessment (IQA) scores from baseline to post-professional learning on observed items with focus on (a) accountable talk and (b) academic rigor.	PROJECT		56 / 80		70.00

2. Project Objective:

To support increases in teacher self-efficacy and self-report ratings related to classroom questioning and discussion.

2.a. Performance Measure	Measure Type	Quantitative Data			
		Target			
		Raw Number	Ratio		%
At least 50% of teachers in the treatment group will show increases in scores from baseline to post-classroom implementation on self-efficacy and self-ratings on instructional quality items.	PROJECT		40 / 80		50.00

3. Project Objective:

To support increases in teacher recognition of student high-potential behaviors, particularly for students from traditionally underserved populations.

3.a. Performance Measure	Measure Type	Quantitative Data			
		Target			
		Raw Number	Ratio		%
At least 50% of teachers in the treatment group will show increases in mean ratings of their students on a rating scale focused on student high-potential behaviors.	PROGRAM		40	/ 80	50.00

3.b. Performance Measure	Measure Type	Quantitative Data			
		Target			
		Raw Number	Ratio		%
At least 50% of teachers in the treatment group will show increases in mean ratings for their students from traditionally underserved populations on the rating scale.	PROGRAM		40	/ 80	50.00

4. Project Objective:

To demonstrate increased numbers of teachers with training and experience in recognizing and responding to gifted and talented learners through enhanced classroom questioning and discourse, with focus on schools serving communities with large percentages of students from traditionally underserved populations

4.a. Performance Measure	Measure Type	Quantitative Data			
		Target			
		Raw Number	Ratio		%
Participation in project professional learning activities from at least these numbers of teachers: 50 in Y1, 60 in Y2, 65 in Y3, 100 in Y4, 75 in Y5 PLUS at least 70 participants per year after Year 1 in conference sessions linked to project activities.	GPRA	630		/	

4.b. Performance Measure	Measure Type	Quantitative Data			
		Target			
		Raw Number	Ratio		%
Total participation of at least 240 unique teacher participants in project-specific professional learning, with at least 30-40% participation of teachers from traditionally underrepresented populations and/or those who are from the communities they serve.	GPRA	240		/	

5. Project Objective:

To increase numbers of students overall and those from traditionally underserved populations in learning with gifted-focused materials.

Tracking Number:GRANT13593924 Funding Opportunity Number:ED-GRANTS-021622-001 Received Date:Apr 11, 2022 09:42:08 AM EDT

5.a. Performance Measure	Measure Type	Quantitative Data				
		Target				
		Raw Number	Ratio			%
Participation with A3 and Jacob's Ladder materials for at least 15 students per teacher in the treatment group per year in Years 2-4: 300 in Year 2, 600 in Year 3, 375 in Year 4, with the potential for over 1000 in Year 5.	PROJECT	2,275		/		

5.b. Performance Measure	Measure Type	Quantitative Data				
		Target				
		Raw Number	Ratio			%
Participation with A3 and Jacob's Ladder materials for an average per treatment teacher of at least 10 students who are from underserved populations per year in Years 2-4: 200 in Year 2, 400 in Year 3, 250 in Year 4, with the potential for over 600 in Year 5.	PROJECT	1,450		/		

6. Project Objective:

To increase student engagement in classroom questioning and discussion as indicated by increased scores on student-related elements of IQA and increased proportion of student versus teacher talk time in discussions

6.a. Performance Measure	Measure Type	Quantitative Data				
		Target				
		Raw Number	Ratio			%
At least 70% of treatment classrooms observed will show in increases in scores from baseline to post-professional learning on instructional quality items focused on student action (i.e., student linking, student providing).	PROJECT		56	/	80	70.00

6.b. Performance Measure	Measure Type	Quantitative Data				
		Target				
		Raw Number	Ratio			%
At least 70% of treatment classrooms observed will show increases in (a) the proportion of student versus teacher talk time and (b) the length of exchanges following an initial question in classroom discussions from baseline to post-professional learning.	PROJECT		56	/	80	70.00

7. Project Objective:

To demonstrate student achievement linked to engagement with gifted-focused resources and instruction emphasizing classroom questioning and discussion.

7.a. Performance Measure	Measure Type	Quantitative Data			
		Target			
		Raw Number	Ratio		%
At least 40% of students in treatment group classrooms will show scores of at least 3 (of 4) on rubric elements on artifacts produced during implementation of project resources.	PROJECT		510 /	1,275	40.00

7.b. Performance Measure	Measure Type	Quantitative Data			
		Target			
		Raw Number	Ratio		%
At least 50% of students in treatment group classrooms will show increased ratings from the beginning to the end of the school year on teacher ratings of student engagement in classroom discussion.	PROJECT		638 /	1,275	50.04

7.c. Performance Measure	Measure Type	Quantitative Data			
		Target			
		Raw Number	Ratio		%
At least 80% of students in treatment classrooms will show increased scores on state assessments in reading.	GPRA		1,020 /	1,275	80.00

7.d. Performance Measure	Measure Type	Quantitative Data			
		Target			
		Raw Number	Ratio		%
At least 80% of students in treatment classrooms will show increased scores on state assessments in mathematics.	GPRA		1,020 /	1,275	80.00

8. Project Objective:

To increase student scores on a teacher rating scale focused on observing behaviors indicative of advanced potential.

8.a. Performance Measure	Measure Type	Quantitative Data			
		Target			
		Raw Number	Ratio		%
At least 50% of students in treatment group classrooms will show increased ratings from the beginning to the end of the school year on teacher rating scale.	PROJECT		638 /	1,275	50.04

9. Project Objective:

To increase scores for students from traditionally underserved populations on a teacher rating scale focused on observing behaviors indicative of advanced potential.

9.a. Performance Measure	Measure Type	Quantitative Data			
		Target			
		Raw Number	Ratio		%
At least 50% of students in treatment group classrooms who are from traditionally underserved populations will show increased ratings from the beginning to the end of the school year on teacher rating scale.	PROJECT		425 /	850	50.00

10. Project Objective:

To support increased identification of students from traditionally underserved populations for their local gifted programs, as evidenced by increased likelihood of referrals from classroom teachers and school district data on identification.

10.a. Performance Measure	Measure Type	Quantitative Data			
		Target			
		Raw Number	Ratio		%
At least 50% of schools with participating teachers will show increased numbers of students identified for gifted services during the project.	GPRA		10 /	20	50.00

10.b. Performance Measure	Measure Type	Quantitative Data			
		Target			
		Raw Number	Ratio		%
At least 50% of schools with participating teachers will show increased proportions of students from underserved populations identified for gifted services during the project.	GPRA		10 /	20	50.00

10.c. Performance Measure	Measure Type	Quantitative Data			
		Target			
		Raw Number	Ratio		%
At least 50% of teachers in the treatment group will indicate on a rating scale the likelihood that they would refer at least 3 students who are (a) from traditionally underserved populations and (b) not already identified for gifted services.	PROJECT		40 /	80	50.00

11. Project Objective:

To increase the number of teachers with access to resources and professional learning opportunities around identifying and serving gifted and talented learners, including those from traditionally underserved populations.

Tracking Number:GRANT13593924 Funding Opportunity Number:ED-GRANTS-021622-001 Received Date:Apr 11, 2022 09:42:08 AM EDT

11.a. Performance Measure	Measure Type	Quantitative Data			
		Target			
		Raw Number	Ratio		%
At least 240 unique teacher participants (50 in Y1, 60 in Y2, 65 in Y3, 100 in Y4, 75 in Y5) will participate in professional learning and receive resources designed to support learning for high-potential students, and at least 70 teachers per year after Year 1 will participate in conference sessions linked to project activities.	GPRA	520	/		

12. Project Objective:

To disseminate project activities and findings through presentations and publications for various formats and audiences, including researchers and practitioners.

12.a. Performance Measure	Measure Type	Quantitative Data			
		Target			
		Raw Number	Ratio		%
At least 2 conference presentations will be presented in Year 2 and at least 3-4 per year in Years 3-5.	PROJECT	14	/		

12.b. Performance Measure	Measure Type	Quantitative Data			
		Target			
		Raw Number	Ratio		%
At least 2 self-published products (blog posts, video) will be completed per year.	PROJECT	10	/		

12.c. Performance Measure	Measure Type	Quantitative Data			
		Target			
		Raw Number	Ratio		%
At least 4 manuscripts will be submitted or published per year after Year 2.	PROJECT	12	/		

INSTRUCTIONS
GRANT APPLICATION FORM FOR
PROJECT OBJECTIVES AND PERFORMANCE MEASURES INFORMATION

PURPOSE

Applicants must submit a **GRANT APPLICATION FORM FOR PROJECT OBJECTIVES AND PERFORMANCE MEASURES INFORMATION** via Grants.gov or in G5 when instructed to submit applications in G5. This form collects project objectives and quantitative and/or qualitative performance measures at the time of application submission for the purpose of automatically prepopulating this information into the U.S. Department of Education's (ED) automated Grant Performance Report form (ED 524B), which is completed by ED grantees prior to the awarding of continuation grants. Additionally, this information will prepopulate into ED's automated ED 524B that may be required by program offices of grant recipients that are awarded front loaded grants for their entire multi-year project up-front in a single grant award, and will also be prepopulated into ED's automated ED 524B for those grant recipients that are required to use the ED 524B to submit their final performance reports.

GENERAL INSTRUCTIONS

Applicant Information

- **Legal Name:** The legal name of the applicant that will undertake the assistance activity will prepopulate from the Application Form for Federal Assistance (SF 424 Form). This is the organization that has registered with the System for Award Management (SAM). Information on registering with SAM may be obtained by visiting www.Grants.gov.

Project Objectives Information and Related Performance Measures Data

Your grant application establishes project objectives stating what you hope to achieve with your funded grant project. Generally, one or more performance measures are also established for each project objective that will serve to demonstrate whether you have met or are making progress towards meeting each project objective.

- **Project Objective:** Enter each project objective that is included in your grant application. When completing this form in Grants.gov, a maximum of 26 project objectives may be entered. Only one project objective should be entered per row. Project objectives should be numbered sequentially, i.e., 1., 2., 3., etc. If applicable, project objectives may be entered for each project year; however, the year to which the project objective applies must be clearly identified as is presented in the following examples:

  1. **Year 1.** Provide two hour training to teachers in the Boston school district that focuses on improving test scores.
  2. **Year 2.** Provide two hour training to teachers in the Washington D.C. school district that focuses on improving test scores.

- **Performance Measure:** For each project objective, enter each associated quantitative and/or qualitative performance measure. When completing this form in Grants.gov, a maximum of 26 quantitative and/or qualitative performance measures may be entered. There may be multiple quantitative and/or qualitative performance measures associated with each project objective. Enter only one quantitative or qualitative performance measure per row. Each quantitative or qualitative performance measure that is associated with a particular project objective should be labeled using an alpha indicator. Example: The first quantitative or qualitative performance measure associated with project objective "1" should be labeled "1.a.," the second quantitative or qualitative performance measure for project objective "1" should be labeled "1.b.," etc. If applicable, quantitative and/or qualitative performance measures may be entered for each project year; however, the year to which the quantitative and/or qualitative performance measures apply must be clearly identified as is presented in the following examples:

1.a. **Year 1.** By the end of year one, 125 teachers in the Boston school district will receive a two hour training program that focuses on improving test scores.
2.a. **Year 2.** By the end of year two, 125 teachers in the Washington D.C. school district will receive a two hour training program that focuses on improving test scores.

- **Measure Type:** For each performance measure, select the appropriate type of performance measure from the drop down menu. There are two types of measures that **ED** may have established for the grant program:

  1. **GPRA:** Measures established for reporting to Congress under the Government Performance and Results Act; and

  2. **PROGRAM:** Measures established by the program office for the particular grant competition.

  In addition, you will be required to report on any project-specific performance measures **(PROJECT)** that you established in your grant application to meet your project objectives.

  In the **Measure Type** field, select one (1) of the following measure types**: GPRA; PROGRAM; or PROJECT.**

- **Quantitative Target Data:** For quantitative performance measures with established quantitative targets, provide the target you established for meeting each performance measure. Only quantitative (numeric) data should be entered in the Target boxes. If the collection of quantitative data is not appropriate for a particular performance measure (i.e., for **qualitative** performance measures), please leave the target data boxes blank.

  The Target Data boxes are divided into three columns: **Raw Number; Ratio, and Percentage (%).**

  For performance measures that are stated in terms of a single number (e.g., the number of workshops that will be conducted or the number of students that will be served), the target data should be entered as a single number in the **Raw Number column** (e.g., **10** workshops or **80** students). Please leave the **Ratio and Percentage (%) columns** blank.

  For performance measures that are stated in terms of a percentage (e.g., percentage of students that attain proficiency), complete the **Ratio column,** and leave the **Raw Number and Percentage (%) columns** blank. The **Percentage (%)** will automatically calculate based on the entered ratio. In the **Ratio column** (e.g., **80/100**), the numerator represents the numerical target (e.g., the number of students that are expected to attain proficiency), and the denominator represents the universe (e.g., all students served).

Tracking Number:GRANT13593924 Funding Opportunity Number:ED-GRANTS-021622-001 Received Date:Apr 11, 2022 09:42:08 AM EDT

U.S. DEPARTMENT OF EDUCATION
BUDGET INFORMATION
NON-CONSTRUCTION PROGRAMS

OMB Number: 1894-0008
Expiration Date: 09/30/2023

Name of Institution/Organization

University of Connecticut

Applicants requesting funding for only one year should complete the column under "Project Year 1." Applicants requesting funding for multi-year grants should complete all applicable columns. Please read all instructions before completing form.

SECTION A - BUDGET SUMMARY
U.S. DEPARTMENT OF EDUCATION FUNDS

Budget Categories	Project Year 1 (a)	Project Year 2 (b)	Project Year 3 (c)	Project Year 4 (d)	Project Year 5 (e)	Project Year 6 (f)	Project Year 7 (g)	Total (h)
1. Personnel	[redacted]							
2. Fringe Benefits								
3. Travel								
4. Equipment								
5. Supplies								
6. Contractual								
7. Construction								
8. Other								
9. Total Direct Costs (lines 1-8)								
10. Indirect Costs*								
11. Training Stipends								
12. Total Costs (lines 9-11)								

Indirect Cost Information *(To Be Completed by Your Business Office): If you are requesting reimbursement for indirect costs on line 10, please answer the following questions:

(1) Do you have an Indirect Cost Rate Agreement approved by the Federal government? ☒ Yes ☐ No

(2) If yes, please provide the following information:

Period Covered by the Indirect Cost Rate Agreement: From: 07/01/2020 To: 06/23/2023 (mm/dd/yyyy)

Approving Federal agency: ☐ ED ☒ Other (please specify): Department of Health and Human Services

The Indirect Cost Rate is 26.00 %.

(3) If this is your first Federal grant, and you do not have an approved indirect cost rate agreement, are not a State, Local government or Indian Tribe, and are not funded under a training rate program or a restricted rate program, do you want to use the de minimis rate of 10% of MTDC? ☐ Yes ☐ No If yes, you must comply with the requirements of 2 CFR § 200.414(f).

(4) If you do not have an approved indirect cost rate agreement, do you want to use the temporary rate of 10% of budgeted salaries and wages?

☐ Yes ☐ No If yes, you must submit a proposed indirect cost rate agreement within 90 days after the date your grant is awarded, as required by 34 CFR § 75.560.

(5) For Restricted Rate Programs (check one) -- Are you using a restricted indirect cost rate that:

☐ Is included in your approved Indirect Cost Rate Agreement? Or, ☐ Complies with 34 CFR 76.564(c)(2)? The Restricted Indirect Cost Rate is ____ %.

(6) For Training Rate Programs (check one) -- Are you using a rate that:

☐ Is based on the training rate of 8 percent of MTDC (See EDGAR § 75.562(c)(4))? Or, ☐ Is included in your approved Indirect Cost Rate Agreement, because it is lower than the training rate of 8 percent of MTDC (See EDGAR § 75.562(c)(4))?

ED 524

Name of Institution/Organization	Applicants requesting funding for only one year should complete the column under "Project Year 1." Applicants requesting funding for multi-year grants should complete all applicable columns. Please read all instructions before completing form.	
University of Connecticut		

SECTION B - BUDGET SUMMARY
NON-FEDERAL FUNDS

Budget Categories	Project Year 1 (a)	Project Year 2 (b)	Project Year 3 (c)	Project Year 4 (d)	Project Year 5 (e)	Project Year 6 (f)	Project Year 7 (g)	Total (h)
1. Personnel								
2. Fringe Benefits								
3. Travel								
4. Equipment								
5. Supplies								
6. Contractual								
7. Construction								
8. Other								
9. Total Direct Costs (lines 1-8)								
10. Indirect Costs								
11. Training Stipends								
12. Total Costs (lines 9-11)								

SECTION C - BUDGET NARRATIVE (see instructions)

ED 524

Name of Institution/Organization	Applicants requesting funding for only one year should complete the column under "Project Year 1." Applicants requesting funding for multi-year grants should complete all applicable columns. Please read all instructions before completing form.	
University of Connecticut		

IF APPLICABLE: SECTION D - LIMITATION ON ADMINISTRATIVE EXPENSES

(1) List administrative cost cap (x%): ☐

(2) What does your administrative cost cap apply to? ☐ (a) indirect and direct costs or, ☐ (b) only direct costs

Budget Categories	Project Year 1 (a)	Project Year 2 (b)	Project Year 3 (c)	Project Year 4 (d)	Project Year 5 (e)	Project Year 6 (f)	Project Year 7 (g)	Total (h)
1. Personnel Administrative								
2. Fringe Benefits Administrative								
3. Travel Administrative								
4. Contractual Administrative								
5. Construction Administrative								
6. Other Administrative								
7. Total Direct Administrative Costs (lines 1-6)								
8. Indirect Costs								
9. Total Administrative Costs								
10. Total Percentage of Administrative Costs								

ED 524

1. Level of Evidence

Select the level of evidence of effectiveness for which you are applying. See the Notice Inviting Applications for the relevant definitions and requirements.

☐ Demonstrates a Rationale ☐ Promising Evidence ☐ Moderate Evidence ☒ Strong Evidence

2. Citation and Relevance

Fill in the chart below with the appropriate information about the studies that support your application.

A. Research/Citation	B. Relevant Outcome(s)/Relevant Finding(s)	C. Project Component(s)/Overlap of Populations and/or Settings
Pashler, H., Bain, P., Bottge, B., Graesser, A., Koedinger, K., McDaniel, M., and Metcalfe, J. (2007) Organizing Instruction and Study to Improve Student Learning (NCER 2007-2004). Washington, DC: National Center for Education Research, Institute of Education Sciences, U.S. Department of Education. Retrieved from http://ncer.ed.gov. https://ies.ed.gov/ncee/wwc/Docs/PracticeGuide/20072004.pdf This practice guide was prepared prior to version 1.0 of the WWC standards (2008) but included description of IES levels of evidence used at the time (see Table 1, p. v).	(Table 2., p. 2) Recommendation 7: (“Ask deep explanatory questions”) is backed by strong evidence. (p. 29) Studies contributing to the “strong evidence” supporting the effectiveness of Recommendation 7 reported statistically significant and positive impacts of this practice on student understanding, comprehension, and achievement through specific techniques to support asking deep questions, constructing deep explanations, and helping students to ask deep questions to build explanations.	Project Focus specifically addresses the WWC recommendation to integrate questioning and discourse into classroom practice, specifically the following: • (Table 2, p. 2) “Use instructional prompts that encourage students to pose and answer ‘deep-level’ questions on course material. These questions enable students to respond with explanations and supports deep understanding of taught material.” • (p. 29) “Periodically encourage students to ‘think aloud’ in speaking or writing their explanations as they study the material. After presenting their explanations, it is beneficial for them to get feedback by observing good explanations of peers, tutors, and teachers” • (p. 29) “Ask questions that elicit explanations, such as those with the following question stems: why, what caused X, how did X occur, what if, what-if-not, how does X compare to Y, what is the evidence for X, and why is X important?” Project Focus will equip teachers with resources and strategies for encouraging higher-level thinking; and develop new information about specific linguistic features that characterize high-quality classroom questioning and discussion, including components of accountable talk and academic rigor. The specific resources used in the project include deep questions to engage students in discussion, and they emphasize providing explanations to support responses and asking further questions.
Woodward, J., Beckmann, S., Driscoll, M., Franke, M., Herzig, P., Jitendra, A., Koedinger,	(Table 2, p. 3) Recommendation 2 (“Assist students in monitoring and reflecting on the	Project Focus will engage teachers in learning about elements of facilitating higher-level

K. R., & Ogbuehi, P. (2018). Improving mathematical problem solving in grades 4 through 8: A practice guide (NCEE 2012-4055). Washington, DC: National Center for Education Evaluation and Regional Assistance, Institute of Education Sciences, U.S. Department of Education. Retrieved from http:// ies.ed.gov/ ncee/wwc/publications_reviews.aspx#pubsearch/ This report was prepared under Version 2.0 of the WWC Handbook (p. 70). https://ies.ed.gov/ncee/wwc/Docs/PracticeGuide/MPS_PG_043012.pdf	problem-solving process") is backed by strong evidence. (Table D.2, pp. 58-59, Table D.3 p. 59) Studies contributing to the "strong evidence" supporting the effectiveness of Recommendation 2 reported statistically significant and positive impacts of this practice on student achievement.	thinking through questioning, "talk moves," and using feedback. This effort reflects the recommendations of the practice guide because (pp. 17-18) "by building on students' ideas, teachers can help students clarify and refine the way they monitor and reflect as they solve a problem. Teachers can help students verbalize other ways to think about the problem. The teacher-student dialogue can include guided questioning to help students clarify and refine their thinking and to help them establish a method for monitoring and reflecting that makes sense to them." Further, the specific mathematics resources used in Project Focus include strong emphasis on articulating, discussing, and writing about problem-solving processes, including reflection questions.
Baker, S., Lesaux, N., Jayanthi, M., Dimino, J., Proctor, C. P., Morris, J., Gersten, R., Haymond, K., Kieffer, M. J., Linan-Thompson, S., & Newman-Gonchar, R. (2014). Teaching academic content and literacy to English learners in elementary and middle school (NCEE 2014-4012). Washington, DC: National Center for Education Evaluation and Regional Assistance (NCEE), Institute of Education Sciences, U.S. Department of Education. Retrieved from the NCEE website: http://ies.ed.gov/ncee/wwc/publications_reviews.aspx. This report was prepared under Version 2.1 of the WWC Handbook (p. 80). https://ies.ed.gov/ncee/wwc/Docs/PracticeGuide/english_learners_pg_040114.pdf	(Table 1, p.7). Recommendation 2 ("Integrate oral and written English language instruction into content-area teaching," specifically the recommendation to "Provide daily opportunities for students to talk about content in pairs or small groups") is backed by strong evidence. All five studies resulted in positive impacts on content-area acquisition measures (p. 31). (Table D.2, pp. 90-91) Studies contributing to the "strong evidence" supporting the effectiveness of Recommendation 2 reported statistically significant and positive impacts of this practice on understanding of content.	(p. 40) The curricular resources used in Project Focus are designed to support discussion in pairs and small groups, and (p. 41) the professional learning in the project will specifically emphasize how teachers can effectively structure, model, and facilitate student use of talk moves in various discussion settings, including small group and large group contexts. The project also aligns with the emphasis in the practice guide on ensuring access to content learning by providing daily opportunities for discussion of content to promote achievement in content acquisition (p. 31).
Taylor, J. A., Roth, K., Wilson, C. D., Stuhlsatz, M. A., & Tipton, E. (2017). The effect of an analysis-of-practice, videocase-based, teacher professional development program on elementary students' science achievement. Journal of Research on Educational Effectiveness, 10(2), 241-271. Available at https://eric.ed.gov/?id=EJ1135795 Meets WWC Group Design Standards without Reservations under review standards 4.0 (https://ies.ed.gov/ncee/wwc/Study/85774)	(Figure 1, p. 245) STeLLA is an analysis-of-practice, videocase-based professional development program for elementary teachers that uses lesson video analysis to support teachers' learning about science content and effective science teaching. The program is intended to increase students' science achievement by increasing teachers' ability to attend to student thinking. Teachers attended PD and videocase analysis sessions with coaches to learn to continually probe student thinking to find out how students are making sense of new data or ideas, challenge students to stretch their thinking and to make new connections. Teachers were encouraged to have students communicate in scientific ways (such as making claims, providing evidence and reasoning to support claims, and listening and responding to others' ideas). The study sample included 2,823 students (1,485 in the intervention group and 1,338 in the comparison group) in fourth- and fifth-grade classrooms in the participating schools.	Project Focus not only will engage teachers in strategies to probe students' thinking but will also engage them in an analysis-of-practice through ongoing monitoring and professional learning. Treatment group teachers will engage in professional learning both during a summer workshop and ongoing analysis-of-practice with professionals and coaches, just as in the SteLLA study. Treatment teachers will be asked to analyze and reflect on their own videos throughout Phases 2 and 3, with specific individualized coaching around videos of teaching practice during Phase 3. Project Focus is also a quasi-experimental design that includes both treatment and comparison conditions.

	(Table 6, p. 260) Teachers who were engaged in the analysis-of-practice PD condition showed higher increases in students' content knowledge.	

Instructions for Evidence Form

1. **Level of Evidence.** Check the box next to the level of evidence for which you are applying. See the Notice Inviting Applications for the evidence definitions.

2. **Citation and Relevance.** Fill in the chart for each of the studies you are submitting to meet the evidence standards. If allowable under the program you are applying for, you may add additional rows to include more than four citations. (See below for an example citation.)
   a. **Research/Citation.** For Demonstrates a Rationale, provide the citation or link for the research or evaluation findings. For Promising, Moderate, and Strong Evidence, provide the full citation for each study or WWC publication you are using as evidence. If the study has been reviewed by the WWC, please include the rating it received, the WWC review standards version, and the URL link to the description of that finding in the WWC reviewed studies database. Include a copy of the study or a URL link to the study, if available. Note that, to provide promising, moderate, or strong evidence, you must cite either a specific recommendation from a WWC practice guide, a WWC intervention report, or a publicly available, original study of the effectiveness of a component of your proposed project on a student outcome or other relevant outcome.
   b. **Relevant Outcome(s)/Relevant Finding(s).** For Demonstrates a Rationale, describe how the research or evaluation findings suggest that the project component included in the logic model is likely to improve relevant outcomes. For Promising, Moderate and Strong Evidence, describe: 1) the project component included in the study (or WWC practice guide or intervention report) that is also a component of your proposed project, 2) the student outcome(s) or other relevant outcome(s) that are included in both the study (or WWC practice guide or intervention report) and in the logic model (theory of action) for your proposed project, and 3) the study (or WWC intervention report) finding(s) or WWC practice guide recommendations supporting a favorable relationship between a project component and a relevant outcome. Cite page and table numbers from the study (or WWC practice guide or intervention report), where applicable.
   c. **Project Component(s)/Overlap of Population and/or Settings.** For Demonstrates a Rationale, explain how the project component(s) is informed by the research or evaluation findings. For Promising, Moderate, and Strong Evidence, explain how the population and/or setting in your proposed project are similar to the populations and settings included in the relevant finding(s). Cite page numbers from the study or WWC publication, where applicable.

EXAMPLES: For Demonstration Purposes Only (the three examples are not assumed to be cited by the same applicant)

A. Research/Citation	B. Relevant Outcome(s)/Relevant Finding(s)	C. Project Component(s)/Overlap of Populations and/or Settings
Graham, S., Bruch, J., Fitzgerald, J., Friedrich, L., Furgeson, J., Greene, K., Kim, J., Lyskawa, J., Olson, C. B., & Smither Wulsin, C. (2016). Teaching secondary students to write effectively (NCEE 2017-4002). Washington, DC: National Center for Education Evaluation and Regional Assistance (NCEE), Institute of Education Sciences, U.S. Department of Education. Retrieved from the NCEE website: https://ies.ed.gov/ncee/wwc/PracticeGuide/22. This report was prepared under Version 3.0 of the WWC Handbook (p. 72).	*(Table 1, p. 4) Recommendation 1 ("Explicitly teach appropriate strategies using a Model – Practice – Reflect instructional cycle") is characterized as backed by "strong evidence."* *(Appendix D, Table D.2, pp. 70-72) Studies contributing to the "strong evidence" supporting the effectiveness of Recommendation 1 reported statistically significant and positive impacts of this practice on genre elements, organization, writing output, and overall writing quality.*	*(Appendix D, Table D.2, pp. 70-72) Studies contributing to the "strong evidence" supporting the effectiveness of Recommendation 1 were conducted on students in grades 6 through 12 in urban and suburban school districts in California and in the Mid-Atlantic region of the U.S. These study samples overlap with both the populations and settings proposed for the project.*

A. Research/Citation	B. Relevant Outcome(s)/Relevant Finding(s)	C. Project Component(s)/Overlap of Populations and/or Settings
U.S. Department of Education, Institute of Education Sciences, What Works Clearinghouse. (2017, February). Transition to College intervention report: Dual Enrollment Programs. Retrieved from https://ies.ed.gov/ncee/wwc/Intervention/1043. This report was prepared under Version 3.0 of the WWC Handbook (p. 1).	*(Table 1, p. 2) Dual enrollment programs were found to have positive effects on students' high school completion, general academic achievement in high school, college access and enrollment, credit accumulation in college, and degree attainment in college, and these findings were characterized by a "medium to large" extent of evidence.*	*(pp. 1, 19, 22) Studies contributing to the effectiveness rating of dual enrollment programs in the high school completion, general academic achievement in high school, college access and enrollment, credit accumulation in college, and degree attainment in college domains were conducted in high schools with minority students representing between 32 and 54 percent of the student population and first generation college students representing between 31 and 41 percent of the student population. These study samples overlap with both the populations and settings proposed for the project.*
Bettinger, E.P., & Baker, R. (2011). The effects of student coaching in college: An evaluation of a randomized experiment in student mentoring. Stanford, CA: Stanford University School of Education. Available at https://ed.stanford.edu/sites/default/files/bettinger_baker_030711.pdf *Meets WWC Group Design Standards without Reservations under review standards 2.1 (http://ies.ed.gov/ncee/wwc/Study/72030).*	*The intervention in the study is a form of college mentoring called student coaching. Coaches helped with a number of issues, including prioritizing student activities and identifying barriers and ways to overcome them. Coaches were encouraged to contact their assignees by either phone, email, text messaging, or social networking sites (pp. 8-10). The proposed project for Alpha Beta Community College students will train professional staff and faculty coaches on the most effective way(s) to communicate with their mentees, suggest topics for mentors to talk to their mentees, and be aware of signals to prevent withdrawal or academic failure.* *The relevant outcomes in the study are student persistence and degree completion (Table 3, p. 27), which are also included in the logic model for the proposed project.* *This study found that students assigned to receive coaching and mentoring were significantly more likely than students in the comparison group to remain enrolled at their institutions (pp. 15-16, and Table 3, p. 27).*	*The full study sample consisted of "13,555 students across eight different higher education institutions, including two- and four-year schools and public, private not-for-profit, and proprietary colleges." (p. 10) The number of students examined for purposes of retention varied by outcome (Table 3, p. 27). The study sample overlaps with Alpha Beta Community College in terms of both postsecondary students and postsecondary settings.*