

# *Reflections from the Classroom*

2017–18

Volume 20

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# Introduction

Several years ago, CTE's advisory board wondered how we could prompt greater collaboration and community around teaching within departments. CTE regularly brings together faculty and staff from diverse departments through our workshops, Best Practices Institute, Faculty Seminar, and more recently C21 and Diversity Scholars. These cross-disciplinary programs give participants opportunities to address broad teaching themes, discuss strategies that may be effective across disciplines, and think outside the box of their own disciplines. But many meaningful questions about teaching and learning are best addressed within a department or program: How can we help students be more successful in progressing across the curriculum? How do we get students better prepared to do \_\_\_\_ in upper-level courses? What transferable skills and knowledge are students taking away from our program?

To foster work on these sorts of questions, we reframed our department teaching award as a grant that gives faculty the opportunity to collaboratively explore broad, program-level issues. The grant model empowers departments to test new and creative ideas that they might not otherwise have the resources or time to address. We have been so pleased with the outcomes that we incorporated mini-grants into CTE's C21 Course Redesign Consortium and our NSF-funded TRESTLE project for STEM courses (see [www.trestlenetwork.org](http://www.trestlenetwork.org)). The essays in this volume showcase rich examples of department-level innovation supported through these mechanisms.

Several essays describe department efforts to transform key parts of a curriculum. Classics focused on transforming their survey and introductory courses to increase students' rates of successful course completion, as well as persistence in the Greek and Latin language sequences. The linguistics department worked at the other end of their undergraduate curriculum to design two capstone courses that ask students to integrate knowledge and skills acquired in their program. Music therapy used the grant to support remapping their curriculum, to align their program with changing needs of their students and the field. Political science used the funds to create a program that better integrates graduate students into the teaching culture of the department and improves their preparation as future faculty.

The last two essays highlight how involving a critical mass of faculty and courses in innovation efforts can foster a positive culture for teaching and learning. In civil, environmental and architectural engineering, TRESTLE course transformation grants awarded to multiple faculty the last few years have begun to generate broader department interest and engagement in teaching innovation. In Spanish and Portuguese, a plan to systematically embed support for the development of key skills across their curriculum has also created a greater sense of community around teaching.

The work described in this volume is a snapshot of the program-level teaching innovations being developed at KU. These innovations are helping departments achieve greater coordination across courses, which can reduce redundancies and gaps in instruction and increase the likelihood that students transfer what they learn from one course to another. More generally, these essays also reveal how collaborative work on teaching at a program or department level can foster productive exchange of ideas about teaching, a sense of collective responsibility for student learning and success, and the broad engagement and shared vision that is needed to make innovations sustainable over time.

Andrea Follmer Greenhoot  
CTE Director and Gauff Teaching Scholar  
Professor of Psychology



# New approaches to familiar circumstances

Tara Welch  
Classics

For the past five years, the classics department has worked to transform its undergraduate curriculum, prompted by a familiar set of circumstances, including changing student learning habits, shifting overall enrollment patterns, and the revision invited by the KU Core. In addition to launching many new courses and retiring some tired ones, we undertook two major teaching transformations: We overhauled our popular Greek and Roman Mythology course (CLSX 148), and we created new hybrid models for teaching introductory-level ancient languages. Both transformations were supported with grant funding from CTE; both were collaborative, but in different ways; and both have deeply affected our department's teaching culture.

## CLSX 148

A small team of faculty (Emma Scioli, Pam Gordon, and I) participated in the Collaborative Humanities Redesign Project

(CHRP), a multi-year and multi-institution working group. We set out to transform the myth class into something more dynamic and rigorous, while still being able to reach hundreds of students each year. We three faculty members brought to the project our own concerns about and pet assignments from

The data show that after our course revisions, students are achieving higher levels of critical thinking across the course, that students with the weakest backgrounds coming into the course now show the most benefit, and that the DFW rate for the course has dropped significantly.

the myth class. For three years on CHRP our process took this form: discuss, experiment, measure, repeat. The resulting myth class is much better at helping students think about ancient texts and images not as plots to be mastered, but as complex responses to societal questions. The data show that after our course revisions, students are achieving higher levels of criti-

cal thinking across the course, that students with the weakest backgrounds coming into the course now show the most benefit, and that the DFW rate for the course has dropped significantly.

The CHRP team shared our process and results with our department both formally, as

part of our department's Lunch and Learn series and in department meetings, and informally in frequent hallway discussions. The latter was inevitable, since we share the teaching of this course among all faculty and graduate students, and we offer the course in several formats, from face-to-face to flipped hybrid to online. While myth teachers are given much lati-

tude in the mythological texts and themes they teach, we all maintain the new structure. Financial support from CHRP helped our work in two crucial ways:

- First, the grant funded the broader group's interaction, bringing faculty together many times for lengthy conversations.
- Second, the funds our department received enabled us to support graduate student researchers to help us compile and crunch the data (this had the added bonus of including graduate students in the nuts and bolts of course redesign).

Intro Greek and Latin  
With the aid of a CTE  
Department Teaching Grant,  
our department revamped our  
introductory Greek and Latin  
courses. Proficiency in reading  
Latin and/or Greek is at the  
core of understanding the  
ancient world, and this is  
accordingly our department's  
first and primary goal for stu-  
dent learning. The traditional  
model for these courses is small  
face-to-face sections that meet  
five days a week. We sought to  
explore alternative models and  
developed two different hybrid  
language structures.

In our intro Greek sequence,  
students now come to class  
three days a week to learn the  
basics of grammar, which they  
practice online two days a

week. Each semester, the online  
work improves as we tinker  
with it to respond to students'  
needs and feedback. This hybrid  
course has enabled a steady  
stream of students to take  
Greek—and stick with it—who  
might not otherwise have been  
able to do so.

In Latin we did the opposite  
and tried a flipped model in  
which students are introduced  
to the material through online  
resources and then come to  
class to practice and apply it.  
The in-person days function  
more like reading workshops in  
this model. We found that the  
flipped model did not meet our  
needs as well as the hybrid  
model; student achievement  
slipped, as did retention to the  
second year. We're now work-  
ing on next steps.

We used the CTE funds to  
support student workers who  
helped us test the online Greek  
exercises, to bring to KU speak-  
ers expert in online Greek and  
Latin pedagogy, and to host a  
colloquium for pre-collegiate  
Latin teachers in Kansas and  
Missouri. As with the myth  
class, these changes have been  
part of formal and informal  
departmental conversation,  
particularly because of their  
implications for the down-  
stream curriculum. Most of our  
conversations have been quite  
passionate—a good indication  
that what we are discussing is  
important to us both practically  
and philosophically: Why do

we teach these languages? Who  
should be learning them? What  
do we want students to get  
from their language study?

The conversations are ongo-  
ing.

# Evaluating learning and curriculum through capstone courses

Joan Sereno and Allard Jongman  
Linguistics



The unique strength of the linguistics department is the systematic pairing of theoretical and experimental investigations of linguistic knowledge. To reflect the importance of both linguistic theory and experimentation, we developed two capstone courses that require students to integrate knowledge, concepts, and skills that they have been exposed to throughout our curriculum. One of these courses (LING 420 Capstone: Research in Language Science) focuses more on experimental investigations of language structure, while the other course (LING 421 Capstone: Typology—The Unity and Diversity of Human Language) emphasizes cross-linguistic structural diversity. Since fall 2014, all linguistics majors take either LING 420 or LING 421.

LING 420 provides a foundation for designing, conducting, and critically evaluating quantitative and qualitative research in the language sciences. Topics include formulating a research hypothesis, participant selec-

tion, ethical considerations, the scientific method, dependent and independent variables, and data collection, as well as descriptive and inferential statistics. In this course, students identify a linguistically relevant question, translate it into a testable hypothesis, and develop a research method that uniquely allows them to test this hypothesis. Since linguistic

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issues are influenced and determined by a number of factors, including phonological, morphological, lexical, and syntactic structure, the development of a hypothesis and appropriate research paradigm by necessity requires integration of knowledge across several linguistic sub-disciplines.

LING 421 explores the similarities and differences across

the world's languages. Students apply their knowledge of phonological, morphological, lexical, and syntactic structure to describe and analyze phenomena from a number of languages. In addition to lecture style instruction, students get hands on practice in collecting, transcribing, and analyzing data from different languages through face-to-face elicitation

with native speakers. Students apply the knowledge and skills that they have acquired in previous linguistics courses by working directly with native speakers of languages that they have (most likely) never studied, eliciting data from them and then analyzing the results. At the same time, students expand their knowledge of both grammatical structure and

cross-linguistic structural diversity.

Each course results in a creative product. For LING 420, this is a fully developed proposal for a research project with all its components (i.e., a blueprint for an experiment). For LING 421, this is a typological sketch (i.e., a mini grammar) of a language of the student's choosing, based on the catalog of linguistic properties and types explored in class. Students provide both oral presentations and written papers of their research project.

While the two capstone courses emphasize different kinds of linguistic data, they are each designed to make students integrate, expand, and apply knowledge, concepts, and skills that they have been exposed to throughout our curriculum. We therefore implement the same assessment procedures and rubrics in both courses: an assessment of their learning throughout the curriculum.

With support from a CTE Department Teaching Grant, we set out to evaluate the effectiveness of our new approach. We formulated four goals for our majors. Upon graduation, students should be able to:

1. demonstrate understanding of the concepts, theories and methodologies used by linguists,
2. apply linguistic methods to the analysis of language,
3. use linguistic data effectively

to construct an argument and critically evaluate a hypothesis about language, and

4. communicate effectively orally and in writing about language.

We use the capstone courses to determine the extent to which each of these goals is met. The CTE grant allowed us to hire graduate students to help faculty develop and apply the rubrics for oral and written work, and to fund a small-scale department retreat to evaluate the outcomes and plan for the future.

Annually, the capstone course instructors meet each semester with the chair and associate chair to discuss assessment data across both capstone courses. In addition, each fall semester a full department meeting (*Assessfest*) is dedicated to a discussion of the results (both rubric scores and student surveys) and identification of areas that can be improved.

While demonstration that our goals have been met will require a longitudinal approach, results to date suggest that students are performing overall in the "very good" range, particularly for their oral presentations. As a result of this process, the department is considering incorporating more writing assignments in courses prior to the capstone to provide additional preparatory training.

# Re-envisioning the music therapy undergraduate curriculum

Cindy Colwell  
Music Therapy



In spring 2016, the music therapy program received a CTE C21 Course Transformation Grant, followed with additional support through a Department Teaching Grant. Rather than isolating one course or related group of courses, we chose to look intently at how we are introducing, practicing, and assessing the American Music Therapy Association's Professional Competencies across our music therapy undergraduate curriculum. This competency document is divided into music foundations, clinical foundations, and music in therapy, grouping 109 competencies into 20 skill and/or knowledge categories.

Our impetus was to benchmark these competencies to be used across our academic and clinical training program for the following purposes:

- to better determine students' developmental fit for the program and profession;

- to provide documented feedback for students, clinical supervisors, and faculty targeting improvement across the program; and
- to summarize and evaluate student progress at various levels, including when they leave campus to complete their six-month clinical internships.

To address this broad task, we decided to:

- examine who we are as a program;
- as a leading program in the field, articulate what we believe academic and clinical training should strive for;
- decide how to establish a foundation upon which comprehensive, innovative curricular revision would be possible.

We had to first recognize that we might not even be able to envision what our profession might look like in the foreseeable future; creative vision

became consequential. We released being tied to these competencies and instead took a step back and looked at our program and profession through a wider lens. To that end, the music therapy faculty—Cindy Colwell, Abbey Dvorak, Deanna Hanson-Abromeit, and Bill Matney—used the funding support to initiate two intensive summer retreats.

In summer 2016, we met for three days of uninterrupted think time, a luxury for faculty. During this initial retreat, we decided to create mission and vision statements for our program (see page 6). We began exploring the professional competencies and considered how these fit within our newly minted mission and vision statements. We continued by collaborating on a set of enduring understandings for the program:

- a. musicianship (both foundational and clinical),

- b. therapeutic process,
- c. therapeutic effectiveness (both intrapersonal/ reflection and interpersonal/ clinical decision making) and
- d. professionalism.

In summer 2017, we revisited the enduring understandings, visually conceptualizing how they intersected and thinking about the continuum of skill mastery and knowledge represented within those that would eventually guide benchmarking the competencies. We decided upon a continuum of novice, emerging, intermediate, proficient, advanced, and expert and embarked on the task of defining each.

As a team, we brought elements to this process that supported shared values yet different areas of expertise, passion, and experience. Bill Matney served as a clinical supervisor in the KU program as a doctoral student and as such had first-hand knowledge of challenges when addressing the competencies in the clinical training program. His passion for musicianship and concurrent realignment of our functional guitar and percussion classes were definite assets. As a liaison with the national association responsible for facilitating the last re-approval process, Cindy

Colwell had access to documentation as well as institutional knowledge and curricular history. Abbey Dvorak has developed a passion for teaching as scholarly activity and has initiated research experiences for our students embedded within

students in our program to examine benchmarking of various competencies as a project in the students' professional development seminar. In addition, Deanna brought in innovative theoretical frameworks students had been working on in one of

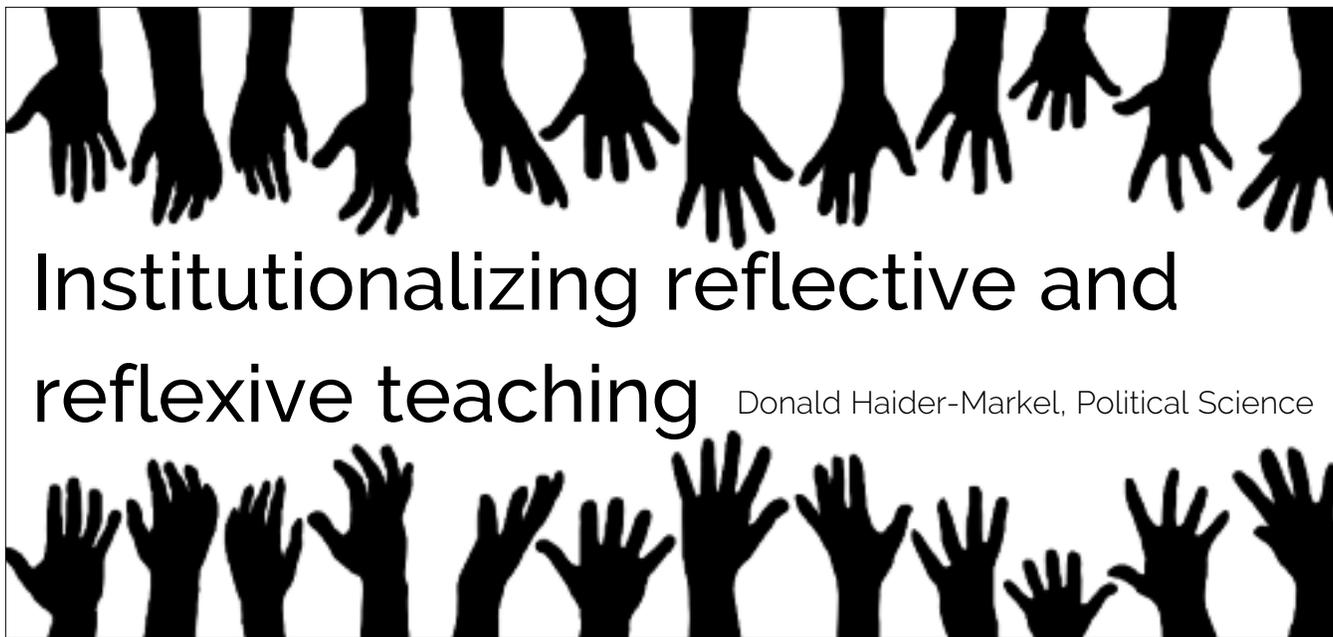
her advanced classes. These aligned with our discussions, and with permission of those students, we were able to make direct application of their materials within our context.

While the task is far from complete, we were invigorated by these two retreat opportunities and the chance to spend quality time with our team wrestling with issues pertinent to our program and more importantly to our changing profession. We continue to examine our curriculum and grapple with this benchmarking process. As active members in our professional association, we feel a responsibility

not only here at KU but to the profession and the many clients that we serve as professional board-certified music therapists, and we look forward to finishing work on our undergraduate curriculum, which may serve as a model for others.



their coursework. Readings from these two areas provided support as we wrestled with definitions, categories, and labeling of skills and knowledge deemed essential for the student music therapist. Deanna Hanson-Abromeit, the primary facilitator of this competency-benchmarking project, has spent several years addressing this topic with colleagues at other universities and encourages stu-



# Institutionalizing reflective and reflexive teaching

Donald Haider-Markel, Political Science

With multiple award-winning teaching faculty and graduate students, the KU Department of Political Science is committed to teaching excellence. We wanted to institutionalize this excellence by designing a set of replicable teaching workshops for our ABD students and systematize direct teaching mentorship of graduate students by political science faculty. Using a 2016 CTE Department Teaching Grant, we developed a series of workshops that sought to foster a departmental culture and individualized practices of more thoughtful and intentional teaching reflection combined with effective documentation and presentation of teaching practices and innovation. The program was implemented in 2016 and continues today.

The direct beneficiaries of the teaching workshops and mentorship have been our doctoral

students. Workshop participants noted a deeper interest in pedagogy and more critical, reflective, and intentional approach to teaching goals, strategies, style, and assessment as a consequence of the program.

Graduate students played a critical role in elevating reflective teaching in their relationships with the faculty mentors and, therefore, in shaping the changes that we sought to institute with the program. Teaching workshops provided resources and inspiration for graduate students' work on teaching philosophies and statements. The workshop space was also used for practicing effective teaching presentations for students' job talks. A graduate assistant hired with the CTE funds offered extensive support to a number of graduate students interested in developing teaching e-portfolios. This deep-

er engagement in reflections, documentation, and presentation of teaching facilitated more regular contact between graduate students and their teaching mentors around the questions of teaching.

All students were encouraged to formalize an online professional identity starting with creating a web page where they would reflect on their teaching experiences and aspirations. The (often free) web pages allowed students to display teaching philosophies, vitas, and even recordings of themselves teaching a lesson. For example, see Brian Turnbull's portfolio at <https://brianturnbull.weebly.com/>

There are several factors that contributed to achievement of the program's goals. Introducing changes or modification to the teaching culture is a bottom-up process that must be

launched, carried out, and sustained by people who are committed to and interested in implementing, learning, and benefitting from the change. The impetus for the program came from the faculty practicing reflective teaching, mentoring graduate students as effective teachers, and recognizing a need for regularizing these practices at the departmental level. The importance of these goals has been recognized and

framework of Friday afternoon brownbags, made the implementation of the program feasible.

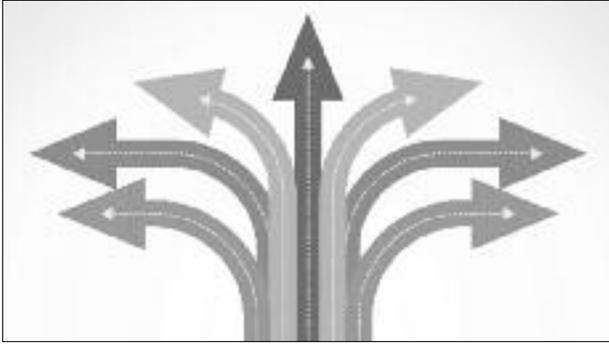
Although the teaching workshops targeted graduate students, we envisioned that the benefits would trickle up to faculty, reinforcing oversight of graduate student professionalization, and trickle down to the undergraduate students through GTA-led courses. However, by strengthening the

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supported by the department's chair and graduate director. The program had a broad buy-in from the graduate students driven by the job market's imperatives but also broader aspirations of being good teachers.

With the department's culture that recognizes and rewards good teaching, we did not need to build new traditions or make serious changes to our departmental teaching practices. Instead, we wanted to tweak the established patterns of teaching mentorship and institutionalize intentional teaching reflection and documentation of teaching practices. This, in conjunction with the institution of teaching workshops within the existing

overall quality of our graduate students as teachers and planting the seeds of reflection, documentation, and teaching mentorship, we found out that the current ABDs intend to use the learned skills, practice, and resources in preparing future teachers themselves.



# From one course to many: Culture change in CEAE

William Collins and Molly McVey

Civil, Environmental and Architectural Engineering

Several faculty members of the civil, environmental, and architectural engineering department have used TRESTLE mini-grants to revamp their courses.

Everything from sophomore-level introductory courses up through senior-level design-based courses have been transformed, with an emphasis on improved learning outcomes. The following faculty and courses have benefited from the mini-grants:

*Bob Lyon, CE 301 Static and Dynamics*

Statics and Dynamics is a fundamental engineering course where students must grapple with concepts that are not easy to visualize. Grants from the CTE have enabled the development of improved in-class modules, travel to another institution to observe innovations in teaching dynamics, and development of “renewable” assignments in which students create original work to be included in the course lecturebook, an alternative to a textbook.

*Remy Lequesne and Matthew Fadden, CE 310 Strength of Materials*

Strength of Materials is one of the first courses that contain a laboratory component in the CEAE curriculum. Grants from CTE have allowed the professors to transform the laboratory portion of the class, which is where a major opportunity to engage students in higher-order thinking skills exists. The transformation of the lab involved the development of pre-lab videos, a laboratory workbook, and the addition of labs done completely via video. These video labs took the place of labs that were historically mundane and involved little active learning.

*Joshua Roundy, CE 455 Hydrology*  
Hydrology is a challenging course because of the difference between in-class activities, which are simple and apply basic course concepts, and real-world application of theories,

which requires the use of computer software and the manipulation of observation data sets. The course transformation grant was used to develop a semester-long project-based learning activity for the course. Divided into 12 modules that students completed throughout the semester, the project used hydrologic analysis techniques to design a reservoir for flood protection, connecting in-class theories to a comprehensive and realistic application.

*Elaina Sutley and Jian Li, CE 461 Structural Analysis*

Structural Analysis introduces students to the fundamental and theoretical concepts of structural engineering. CTE grants will be used to modify and develop new in-class examples using a structured template, to invest in materials for hands-on in-class activities, and to build a bank of original, more authentic homework problems.

*William Collins and Caroline Bennett, CE 562 Design of Steel Structures*

Design of Steel Structures is a senior design course that has undergone extensive transformation to both the lecture and laboratory. However, there was still a disconnect with the third component of the course, a comprehensive semester-long group design project, and CTE grants were used to better align the project with course objectives. A comprehensive backward design of the project better aligned all three components of the course. Additionally, the redesign worked to align lecture and laboratory course goals, leading to a better integration of activities.

Success of grant outcomes was evaluated in each course through quantitative comparisons of student performance and qualitative evaluation of student surveys. The effectiveness of each mini-grant was evaluated individually, and very positive outcomes were observed. However, a more far-reaching benefit is the impact on the culture of teaching in the department. As more faculty have applied for and utilized these mini-grants, discussions of best practices and ways to innovate and improve learning outcomes has become common. The number of faculty and courses involved seems to have reached a critical mass, where

now it is the norm to be engaged in CTE activities, to apply for course transformation grants, to be involved in the Engineering Teaching Working Group, and to be involved in education-related research.

Involvement with CTE and the mini-grants has created a community of educators who are working to improve teaching in the department. One example of this is the recent collaboration of several faculty on a tiered-mentoring project spanning five courses. In each course, all students were engaged in peer mentoring of students “behind” them in the curriculum. This collaboration would not have been possible without the development of a supportive and collaborative teaching community in the department, which is in large part due to the involvement with the TRESTLE mini-grant program through CTE.

# Building courses and community with department teaching grants

Sean Gullickson and Rob Bayliss  
Spanish and Portuguese



With the launch of the Spanish minor in fall 2015, our department was simultaneously presented with the opportunity to attract whole new groups of students to our degree-level course offerings and the challenge to critically evaluate these courses in a new context. Where would new students fit in with the Spanish majors? How could we establish and achieve desired outcomes for our Spanish minor students? How could we use the outcomes to better serve both our majors and minors? Thanks to department teaching grants from the Center for Teaching Excellence, we were able to confront these questions by building a new assessment program directly into the structure of the minor and creating a department-wide plan for enhancing student learning. The result has been a considerable refashioning of large swathes of our curriculum

powered by evidence-based practices and assessment results achieved through implementation of the grants.

A team of faculty including Rob Bayliss, Verónica Garibotto and Isidro Rivera worked to develop and oversee the assessment from which many of these changes would arise, measuring both oral and written communication proficiencies with the aid of a detailed assessment rubric created by Antonio Simões. We were able to provide training to a team of GTAs and employ them during summers to complete these assessments, thus providing them not only with a unique opportunity for professional development but also with much needed summer funding.

As a result of the past three years of assessment and the wider departmental conversation about teaching that it has occasioned, we have identified

and begun to implement several key strategies aimed at improving student outcomes throughout our undergraduate curriculum. First, we saw a need to provide more informal conversational practice for our students. In order to achieve that, we completely redesigned our intermediate conversation course to maximize opportunities for student speech while providing engaging current topics for discussion. We also incorporated Talk Abroad, a program that connects our students with native speakers from all over the Spanish-speaking world, into all of our conversation courses. Over the course of a semester, students will have prepared for, participated in, and reflected upon a set of five 30-minute conversations. This work allows students to get a new perspective on class topics and raise their meta-linguistic awareness. The practice and

confidence that they gain from Talk Abroad leads to positive outcomes in their conversation classes, as well as the program as a whole. The initial cost of this program for students was subsidized by our departmental teaching grant.

Our assessment of student writing has helped us to recognize the need for more in-class writing exercises that target linguistic development, even at these higher levels, and structured opportunities for indepen-

dered writing outside of class time in the form of short writing assignments that provide more frequent feedback across the semester. We are making prevalent use of these low-pressure, high-feedback formative writing assessments in SPAN 324 through the use of biweekly blog entries and in other courses through the incorporation of a more structured approach to process writing and the use of simple but powerful writing activities like the “minute paper.”

Bringing so many professors, lecturers and GTAs into a conversation about our curriculum has built a sense of community and shared purpose within the department.

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department’s teaching mission and helped to better reflect their important role in our department. Overall, these grants have infused new energy into our efforts to inform curricular decisions with evidence collected through assessment. While challenges persist in streamlining assessment and connecting it meaningfully to concrete curricular change, we are encouraged by the progress made with the aid of the grants and will continue to have these fundamentally important conversations in our department. It has helped remind us all that, for students and faculty alike, the learning never ends!