Experiencing Course-Based Undergraduate History Research in a Technically Intensive Curriculum

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Undergraduate teaching in the discipline of history in the United States has long revolved around the production of a research paper. As Blakey (1997) has described, in the past, many professors expected students to generate a paper with little to no guidance over the course of a semester, and the class tended to be centered on instructor lecture. However, the last several decades have brought noticeable changes in history education and in undergraduate research experiences, more specifically. Ishiyama (2002) found that first- and second-year social science and humanities students engaging in collaborative research reported substantial increases in their overall learning and analytical abilities. Wolfgram et al. (2012) similarly indicated that undergraduates who were engaged in research projects reported greater self-confidence, particularly when mentored by a professional in the discipline who encouraged students by assuring them that their research had real meaning and value, and who respected student work on its own merits without erecting barriers. Pacifici and Thomson (2011) concluded that students register the greatest value when research is explicitly connected to the content of a course.

The problem for university history teachers, or more generally, humanities teachers, then, is finding a way to help students conduct meaningful research while also building a trusting relationship with their instructor, all within the scope of a single-semester course. In history, research paradigmatically occurs almost exclusively through individual projects employing substantial primary sources related to the place, period, and people in question. Students must locate their own sources, analyze them, and then employ them as supporting evidence for an argumentative answer to a difficult "how" or "why" question situated in a past context. Fitting all of these activities into an undergraduate course — typically scoped to generate entry-level depth to the history of a place, idea, period, or people — appears daunting. Fortunately, recent research experiences offer some possibilities to help students gain both greater disciplinary understanding as well as improved self-confidence from course-embedded work.

The greatest advances in this area have come largely from the natural sciences in an approach known as Course-Based Undergraduate Research Experiences (CUREs). As described by Auchincloss et al. (2014), CUREs involve all students in a course on a shared research topic of wide interest to the discipline, exposing participants to a range of cutting-edge knowledge while reducing their anxieties about entering the field. Lopatto (2010) agreed that students take away great value from integrated, semester-long experiences in research. Shortlidge et al. (2016) have added that faculty also find great value in these experiences, which enhance their own research through explicit connections to teaching.

Humanities research does not necessarily fit easily into the shared paradigm offered by CUREs. Nonetheless, researchers such as Fitzgerald and Midiri (2013) and Corley (2013) have argued that such an approach is possible. They have found that the greatest satisfaction and success for students and faculty alike stems from having shared research experiences where the students take part in the instructor's research-in-progress. While these communal approaches seem certain to generate results useful in many disciplines, several practical problems arise when attempting to apply them to a university history classroom, an environment and discipline already suffering from dwindling enrollments and reduced student interest (Townsend, 2021). For example, students might not be interested in the very specific topics their history professors specialize on.

This paper argues that history students, and likely students in other humanities disciplines such as literature, philosophy, linguistics, or communications, can conduct meaningful individual research projects through primary sources over the course of a single semester, in the context of course-embedded research. This paper builds on the approach proposed by Hicks and Howkins (2015) whereby students complete individual research projects in a classroom that encourages the periodic sharing of experiences, helping students understand common research pitfalls and to develop the intrinsic motivation and metacognitive skills necessary to research in what Hicks and Howkins term a "personal learning environment" (p. 340). It is crucial that instructors remain engaged in that process from start to finish, helping students to embrace uncertainty (Manley et al, 2019).

Such a course offering must revolve around student research interests while still delivering instructional content on the course theme, be it regional, chronological, or thematic. The resultant discussions on both disciplinary methodology and subject matters can enable the students and instructor to grow together in a shared learning environment. Helping students to gain the confidence in the discipline and the trust in the instructor necessary to achieve success in research requires a scaffolded approach, whereby students complete incremental steps in the research project with close guidance and mentoring (Battaglia & Walden, 2020).

The mixture of individual research and group discussion of student- and instructor-identified successes, pitfalls, and findings aids students in developing skills, particularly individualized research and writing, but in an environment of shared experience with their peers. Indeed, Nokes & Kesler-Lund (2019) found that incremental skill-building in a group environment helped students to build healthier and more robust metacognitive skills that made research success more likely and more rewarding. Battaglia and Walden (2020) agreed that the best undergraduate research programs present students with the incremental steps necessary to build their skills in reasonable timelines while gaining a greater appreciation for disciplinary standards.

At the same time, individual research can expand student self-confidence if mentored carefully by the instructor. Wolfgram et al. (2012) found that students desired an experience in which their analyses mattered, one that helped them feel connected to the larger scholarly community with the assistance and caring of the professor. Fitzgerald and Midiri (2013) similarly reported that the instructor is instrumental in lowering barriers to disciplinary entry through consistent and tailored feedback and mentoring. Brown and Hargis (2008) also suggest that such an integrated approach, in their case via project-based learning in art history, enhances student learning and leaves them with a more positive impression of their own skills and their mastery of course and disciplinary material. When tailored to the experience and environment that confront students at a particular university, this research approach offers great potential in helping students along their educational and professional journeys.

As the findings of this study will highlight, history and humanities teaching and mentoring at the university level thus requires careful attention to student needs, but also to the environment. The

findings in this paper come exclusively from one instructor and his students' experiences at the United States Air Force Academy (USAFA), an undergraduate university in Colorado whose task is to prepare officers for the United States Air Force and Space Force. This narrowly defined mission causes the institution to focus on technical instruction, awarding all students a Bachelor of Science degree regardless of major and requiring a core curriculum that consists of a large number of science and engineering courses. As a result, funding for and attention on the humanities and social sciences can at times lag, making the focus on individual research in an undergraduate course all the more challenging.

In an attempt to contextualize our efforts to navigate this technical environment, Leonard (the instructor) and Ayers (the student, a 2021 graduate) wrote the next sections of this article using evocative autoethnography. Penned in the first person, this technique, as described by Bochner and Ellis (2016), employs recollections and accounts of emotional and intellectual responses to problems, dilemmas, or experiences. Including these introspective reflections in tandem with observations of the surrounding environment helps the reader to grasp the full context and background of the writer in forming conclusions. In this case, including those personal and contextual details sheds light on the real experience of history research in a constrained environment, but one that offers great promise for building students' research skills, when framed appropriately.

The USAFA Core Curriculum, the History Major, and the Potential for Undergraduate Research
Leonard (The Instructor's Perspective)
I have been associated with USAFA on and off since 1995, when I enrolled for my first year as a student. As I progressed through my Air Force career and then transitioned into scholarly work and university teaching, I gained perspectives on that cadet experience and how it prepared me for the life that followed. USAFA describes its mission in relatively simple terms: "To educate, train, and inspire men and women to become leaders of character, motivated to lead the Department of the Air Force in service to our nation." The institution provides greater detail in its "Essence," composed of a number of elements. The components of that essence most relevant to this study include: "immersing cadets in a total experience"; "harmonizing STEM and the liberal arts"; and "competing" (United States Air Force Academy [USAFA], 2021a). While the core or general education curriculum has undergone some modification since my years as a student, these goals applied then as well as they do now.

I always felt that I was gaining a wide education with significant rigor, particularly given that it included substantial elements of military training. I imagined that the breadth of the coursework prepared me well for the rigors of life as an active-duty officer. However, it took me some time after graduation to find the appropriate metacognitive understanding of that education and to appreciate how much I still had to learn about human diversity, social processes, and independent investigation of problems that could affect leaders, regardless of purpose or perspective. While I conducted research as a student at USAFA, it was never structured as a central part of a course, nor did it involve deep analytical engagement with primary sources.

As instructors in a history department, we are trying to fill these long-standing gaps in the student experience while working within institutional constraints. The required balance between the academic, military, and athletic portions of the cadet experience is difficult to maintain, requiring me to develop empathy at a level not required of me earlier in my life. As a graduate of USAFA, I have some credibility with students when I talk to them about time management or academic interests, but many such conversations have limited real impact beyond anecdotal change; the classroom experience, in contrast, holds greater potential for faculty interaction. Conversations in the classroom are continuous and often branch into discussions regarding the difficult balance with core

classes. Students are required to take 29 courses in the core curriculum that equate to more than 90 total credit hours by the time they graduate. Of these courses, they must take a minimum of 13 science and engineering courses, totaling at least 43 credit hours. When added to the requirements for an academic major, many students take six to seven courses of three credit hours or more in a semester (USAFA, 2021b). All of these courses must be completed within a four-year window to graduation; there is no room for extension by federal statute. Finding ways to encourage and enable history major students to participate in substantial research given these constraints is thus a true challenge, amplified by the demands imposed on them each and every day. Classroom time is precious but necessary to achieve this goal.

Given these competing requirements and what we can reasonably expect from the students, our department has structured the history major at USAFA around 14 courses beyond the core curriculum. History majors select from four tracks: general history, international history, military history, or American history. The students then begin their discipline-specific work in a methodology class typically taken during the second year, when they will also likely take a survey course in the region of their choice as well as begin a two-semester survey in American history. The department requires that each student also deepen their theoretical exposure through one elective course in either gender, sexuality, race, or women's history. Finally, each student completes one course from a humanities discipline, typically part of a language minor or of an Air or Space History selection; and a two-semester capstone course along with five open options. This coursework offers our students flexibility, but it does not necessarily make us the most popular department on campus. We hope to offset student fears of the rigor required in history courses by appealing to their desire to excel, to feel part of a larger community, conveying and investigating important ideas. It is also important for us to understand individual student backgrounds if we want them to be successful history researchers, we must meet them where they are and where they have been.

Ayers (The Student's Perspective)

I believe I am uniquely suited for this reflection because I aspire to become a teacher. In every course, I examine critically how instructors build the syllabus and how they go about teaching it. However, before I developed an interest in teaching, I had to learn what it meant to be a student. I arrived at USAFA fully planning on becoming an aeronautical engineer, though my plans changed over time as I interacted with the core curriculum. I graduated from the Academy with a Bachelor of Science, despite my history major. In one semester, for example, I took aeronautical engineering, electrical and computer engineering, an aviation course, history, Chinese, and behavioral science. It was not until the fall of my third year, well into the core curriculum, that I considered an introduction to research.

These core courses are all introductory because instructors offer a glimpse at research while explicitly guiding students through it. My learning experience was therefore heavily influenced by each instructor. The instructors' excitement for class exercises, or lack thereof, fueled a corresponding response in my passion for the course. The classes that eventually failed to interest me were those that either did not offer research opportunities at all or those that forced recipe-like guided labs. In other words, the way instructors taught research structured my interest in pursuing their discipline. I did not identify with small, in-class exercises, but my experience in USAFA's core curriculum made me realize how many academic disciplines I could pursue. Fortunately, our core curriculum included history.

My initial history experiences did not teach rigorous research practices but gave me a glimpse at what historical research could be. USAFA requires two history courses in its core curriculum: Military and World History. The introduction to Military History course is offered primarily to first-year students and focuses on the late nineteenth century and beyond. It is a survey course through and through,

but it made me fall in love with historical study for several reasons. First, I believed it could make me a better officer. The concepts that guide that introductory course tell the story of military decision-making in the past, present, and future. I was intrigued by a major that could offer insights to the decisions I would be making as an officer. Secondly, I was inspired by the depth that historical research could probe. The limits of research conclusions are defined by personal effort in the library or archives. Instructors still play an essential role in checking the academic integrity of our research methods, but there was no limit to the questions I could pose as a history major. With the right mentoring from instructors who reinforced my awe of the discipline, I felt that I could achieve anything.

After declaring as a history major, I moved into the portion of the curriculum best defined as an introduction to the discipline. In many history classes in the second and third years, research tends to take a back seat to understanding what it means to be a historian. These courses were essential scaffolding that contributed to my academic development. Our class focused on comprehensive surveys of a given conflict, region, or period. USAFA's military curriculum presented courses war by war, such as Vietnam and World War I, or by domain, such as naval or air power. These courses built our disciplinary range so we were prepared to conduct real research by our final year. Other course syllabi employed primary source readers for daily homework, and the context for each given period was provided during in-class lectures. This structure was an effective because it immersed the class in the sentiments of the past. I often found myself engrossed by the speeches and personal writings of big names in history. Primary source reading also removed the need for students to conduct historical interpretation through the eyes of a secondary analyst. Furthermore, because we engaged sources daily, there was no need for a large final paper. My Chinese History class, for example, intentionally avoided a research paper as the culminating graded event of the class. Instead, we demonstrated our understanding of historical events through unit tests and small writing projects. In summary, the context scaffolding provided by survey courses, together with the analysis scaffolding erected during primary source classes, successfully prepared me for research.

While I had many great instructors and experiences in the major, not all of our courses helped our learning or engagement in research. For example, the department's introductory course on historical methodology and historiography, a class solely designed to teach research methodologies to second-year students, failed to prepare me for research. I found myself too far into the deep end of historiography. I was amazed that historians would come to different conclusions if things that happened in the past were supposedly objective. Unfortunately, awe was as far as the introductory class ever took me. Our final paper for the course was designed to be a historiographic essay, but my work did not address historiography at all. I wrote a research paper and barely scratched the surface of relevant commentary from other historians. The problem with my introduction to historiography was that I had no idea what I was looking for and was unprepared to engage with other historians in my research. I needed structure, skill repetition, and mentoring to succeed.

The least productive history major classes I have taken are those where the final paper is written in parallel to the entire syllabus. I have associated these classes with more traditional teachers in my time as a student. Those instructors employ lecture to deliver material in class and rarely experiment with other teaching styles. We learn the course material by working away at chronology; all the while a polished research paper is supposed to appear in the background. In those instances, the ever-effective scaffolding is entirely absent. When enrolled in this type of course, I have fallen prey to procrastination. I get consumed by other graded events for the same class on top of work for other classes. I rarely devote time to the final research paper, believing that it can be a problem for another week. In every instance, I get a week away from the submission deadline for the final paper before I even consider starting. I absolutely believe that this problem comes down to my work ethic, but these classes clearly reinforced poor habits. There was no incentive from the teacher to do

anything but procrastinate. In some instances, the course reinforced procrastination because it emphasized graded responsibilities completely disconnected from the end-goal of a research paper.

Learning History Research Through Course Review
Leonard (The Instructor's Perspective)
As a department, we try to recruit through the openness of our options paired with the power of historical thought as preparation for most professional occupations, making historical skills relevant to our students. Our courses should be meaningful to the students in terms of conduct and result. When I design a course, all these issues are swirling in the background as I compete with other offerings in the department for dwindling enrollments. It is important to appeal to the immediate interests of our young student population while still delivering content that aids their intellectual growth. I tried to do exactly that in the research course that included Ayers as a student, History of the Study of Man. In choosing the title and course content, I had to balance the need for gender neutrality with the historical context of the discipline of anthropology itself. The name thus spoke to the non-inclusive nature of most European anthropological thought until well into the twentieth century. This direction had been formulating in my mind for at least a decade, since I worked through my doctoral program and realized the enormous lacuna in my undergraduate education, a lack of social theory. My USAFA experience as a student certainly included history courses, but I never had any exposure to important ideas from thinkers such as Edward Said, Max Weber, G. W. F. Hegel, Michel Foucault, Dipesh Chakrabarty, Ibn Khaldun, or a host of others. While many of us look back at those readings now with the critical (or even reluctant) eye of experienced academic practitioners, that exposure was crucial to pushing our intellectual limits. I wanted this class to jumpstart that process for my students.

The course included a total of 17 students spread across two different meeting periods. At USAFA, each course has roughly 36 in-class hours spread across 40 different meetings or lessons. Research thus had to fit into the sequencing of the course material, delivering the students a balanced background of anthropological context to work with their own research findings. In order to give students the freedom to research topics of interest that fit into the wider historical-theoretical concerns of an anthropologically informed history, I generated relatively open-ended, research-focused course objectives that fit into our larger department course design and assessment schema. The objectives included "framing an original, interpretive argument from an open (selected by student) source context"; "synthesizing analytical findings from multiple theoretical, chronological, and methodological frameworks"; and finally, "using predominantly primary sources to formulate an historical argument, supporting it with evidence, and placing it in context." The problem for me as an instructor was helping students to navigate the complex processes of research without forcing them to work on my own material.

Helping USAFA undergraduates find success in historical research within the institutional constraints on time, resources, and even student interests required acknowledgment and adaptation to the local circumstance while reinforcing the process. We did not focus purely on the traditional research paper, but instead the students could choose the mode and means of expression that made the most sense for their topics, a project-based approach as suggested by Brown and Hargis (2008). Students chose, for instance, podcasts, graphic art, painting, photo collages, posters, epic poems, and documentary films to work their way through sometimes difficult topics on race, gender, genocide, literature, or social theory. Nonetheless, the course remained centered on the need to access primary sources in an original manner, to find a personalized way to encounter and own the research experience. Following the initial research design, students completed a research prospectus, including their initial research question, argument, analysis of secondary and primary source relevance and accessibility, and a timeline for completion. We transitioned from that prospectus to an outline following the end of research, stepping forward to a rough draft and then

the final project submission with presentation to the class. Students completed each one of these steps (which we called milestones) only after time in the library, allowing them to work with sources in an environment built for research. That structure meant that I spent multiple hours over the course of the semester both in- and out-of-class with each student on an individual basis, helping them refine arguments built on solid sources and helping them work through their intellectual insecurities and uncertainties. We also spent significant class time as a group discussing methods, findings, and ultimately in presentation of the work. By the end of the semester, we had spent 11 hours of group time in these discussions as well as somewhere between two to three hours of individualized mentoring and engagement for each student. I wanted them to feel like historians, regardless of their actual disciplinary majors, as we had students from biology, humanities, and foreign area studies as well. I wanted them to live the life of a professional even if only for the occasional hours I got to spend with them. Every minute counted.

Distributing class time thus stood as my greatest quandary. How could I balance these research requirements with the class' desire to understand more about the changing nature of anthropological inquiry over the *longue durée*? Following the path-breaking pedagogical proposals of historians Pace (2004), Calder (2006), and Antonelli-Carter (2020), it was important to move past lecture-driven content delivery while finding a way to mate historical context with the power of research. I felt it was important to be honest with the students about the challenges they would face in these circumstances, in many cases working on topics that we had not yet covered in class discussions in any depth. It was important for all of us to remain flexible, to be willing to adapt topics, means of expression, and occasionally timelines to adjust to changing circumstances. If university education required students to develop life skills in part through the daily management of deadlines and due dates, this course would help them to exercise those newly developed skills through an in-class shared journey of individual research discovery (Robertson & Blackler, 2006). Because I wanted them to build their abilities in research, communication, and presentation, I had to accept the incremental failures that came with learning the research process, meaning that I had to empathize with their struggles to narrow historical questions or to find an appropriate source base through the sharing of my own experiences of confusion and failure as a student of history. I thought all our goals were achievable because of the gains I saw each student make in the incremental course structure along with the routine group discussions and individual student-instructor meetings, but each student would have to employ the full range of intellectual and academic creativity to make it work. The students had proven in class discussions and through research project development that they had the tools, built through discussion and iterative, scaffolded practice, to succeed in their individual research passions.

Ayers (The Student's Perspective)

Dr. Leonard's class was an excellent example of building the syllabus around the final product but was not unique during my time as a student. These courses deconstruct research in different stages that build towards the final deliverable. Each graded assignment contributes to the end-product the instructor requires in forms such as annotated bibliographies, outlines, drafts, and presentations before submission deadlines. At every point in the research process, instructors have hands-on opportunities to check work and inspire new approaches. Extrinsically, these classes also prevent students from procrastinating in their work. While the ideal is that we build a paper on our own, that just is not the undergraduate reality. Graded "milestones" are a fantastic way to avoid the problem. Assignments that encouraged me to build a strong research question and spend significant time with the sources were most effective.

In Dr. Leonard's class we studied the history of anthropology by engaging with the writings of major anthropologists over time. Every class was a discussion where students voiced their interpretation of the readings from the night before. Discussions were the key to my success throughout the course. I

employed a Levi-Straussian structuralist approach in my final project on mythic literary influences on Maoism, so I tried to analyze the readings through a similar lens. I could stretch my understanding of structuralism while engaging with course material. If the class was based around in-class exercises rather than the combination of research and discussion, I may not have had a chance to do the same intellectual framing. Most significantly, this teaching style made me feel like the work I did on the final project was legitimate. In other classes I could get by cutting research corners and still turn in a final project. This was not an option in this course. I felt that my instructor trusted me to accomplish research independently but also valued my time by giving checkpoints that contributed to the project.

The Power of the Instructor-Student Relationship
Leonard (The Instructor's Perspective)
Helping students understand sources, regardless of discipline, stands as a vital professorial task. The trust necessary to make that happen must come from interpersonal connection. Recent research makes clear that students need and expect caring, engaged, and committed faculty. Ticknor's work (2017) presents student-generated lists of the most productive traits of strong mentors and teachers, from attentiveness to individual student needs to offering connections to a larger research community. Taking those lessons to heart, I dedicated myself to continuous engagement with my research students, both in and out of the classroom. USAFA prides itself on professorial availability well beyond the typical university office-hours paradigm, and I have positioned myself no differently.

The students could connect with me virtually or in-person during daylight hours on almost any day to work through their anxieties and concerns as they struggled with the lack of self-confidence common to new researchers. In those discussions and in class conversations more generally, I tried always to lead with vulnerability. Disclosing my own research projects and the accompanying worries, fears, and slow learning process helped them to see that all research is a journey bounded in the short-term by project and in the long-term by career. Even if they would not become professional historians someday, these students would benefit from a rigorous project that asked them to apply all they knew about how to get difficult things done under adverse circumstances. We thus emphasized process over sudden brilliance. Traveling with them, step-by-step, allowed me to show them that I cared, that each of their projects was important to me, and that they should be important to them. For instance, I watched one student find the mesh point between her passions for art and history as she generated a remarkable painting about the Armenian Genocide, a project that began as a vaguely conceived term paper. I witnessed Jackson Ayers, my co-author, turn his reading of Chinese literature into a powerful understanding of the founding myths of Maoist communism, one that evolved from an initial desire to build a physical representation of Mao's bookshelf. The student creativity seemed limitless when set loose within the process of historical research.

Ayers (The Student's Perspective)
When the instructor-student relationship fails, it can be devastating for the student. As an example, guided chemistry labs are one of the thorniest issues in USAFA's well-developed honor code system. Every student receives honor education lessons multiple times a semester while at USAFA. I remember the warnings as a first-year student that the most common honor violations stem from lab reports. In my experience, these cautions were true. I knew multiple friends who were caught cheating when writing their lab reports. I think this indicates problems with our introduction to research system. Students can manage high-level chemistry labs in class when guided through the exercise by their instructor. When released to write the lab report on their own, many students fail to carry academic integrity with them.

I was successful writing lab reports because I completed them early and met with my instructor every time to make sure I had done the work properly. Success was contingent on the time committed to the relationship by student and teacher. Students do not engage with course material or with research methodologies to the same degree, so an instructor will make or break the student's reaction to the course. One key trait in undergraduate research instructors, in my personal opinion, is real or perceived accessibility. Instead of the professor being a distant and apathetic supervisor in the research process, they should strive to become a partner. The partnership is nurtured through time, such as my extra instruction on lab reports, or by simply being honest and relatable during periods of instruction.

Student-to-student conversations regarding course work or course instructors rarely include any sort of pedagogical critique. Instead, we discuss the personality merits of the instructor, utilizing criteria like perceived accessibility, as discussed above. Accessible professors are those who radiate relatability and position themselves as partners in research. Inaccessible instructors, on the other hand, exhibit an adversarial presence that prevents their students from reaching out to improve their research. In the end, inaccessible professors impose limits on their students' growth because we feel we cannot trust them. Chemistry lab reports are one area where I have seen classmates lose trust. Because all research development took place during lecture periods, students and instructors developed what I describe as an in-class codependency that I thought eroded trust. How can I feel trusted as a student if I am delicately led through every step of the process?

Effective scaffolding, on the other hand, gives research direction and leaves the rest up to the student. In my history research classes I felt empowered to perform my own research, and I trusted the instructor to understand my time and my needs. My success in the history major depended on whom I could look to for support. I also needed to feel a sense of legitimacy with the work I completed. Assignments that failed to contribute to a final research paper or even proper research methodologies never felt legitimate. If anything, auxiliary graded assignments made me devalue all items in the syllabus, including the final project. Confidence arising from effective research scaffolding directly increases trust between the student and the professor, in my experience. When instructors manage to exhibit both trustworthiness in their teaching style and legitimacy in the syllabus, students will be more motivated to succeed.

Conclusions

The experiences of the co-authors reveal the power of an undergraduate history course constructed around research, even in a university environment with a heavy focus on technical education. Dedicating precious class time to discussion and production of major research "milestones" (i.e., pieces of a final project that get assessed in a scaffolded process and through which students get feedback several times, allowing them to strengthen the final product and to build skills and self-confidence) gives students an opportunity to learn through doing while maintaining access to professional disciplinary mentoring.

Success in this type of research process requires a focus not on the interests of the instructor, but on those of the students. Allowing the students to find their way through those interests with specific, scheduled research "milestones" restores some agency to them and provides a feeling of real accomplishment and academic inclusion. Implementing this approach requires a rigorous course built around discussion that allows students to grow from one another's experiences while they discover their first real depth in a particular subject area. Flexibility in final-project form contributes to the creation and maintenance of a classroom environment that embraces diversity in backgrounds, interests, and expression.

Inclusivity is thus crucial to ensuring that undergraduate research serves as a meaningful learning experience for students. Class discussions allow the instructor and students to express the fears and vulnerabilities that come with professional research engagement. If students feel respected for their views and their abilities to perform the incremental steps necessary for success in this environment, they are more likely to trust the instructor and the disciplinary process. As students struggle with their own identities under the weight of personal and familial expectations in an environment surrounded by intelligent, capable, and accomplished people, they need empathetic guidance and mentorship. Expecting students to generate research independently with little to no assistance, or to work on projects of interest to the professor but not necessarily themselves, is unlikely to succeed. Overcoming the barriers to exploring and communicating research findings effectively requires a trusting bond between student and teacher-mentor.

Instructors, whether professorial or graduate assistants, at the university level have an opportunity to spur greater growth in their history students through a research-based course that includes significant professor-student engagement. Further research and experimentation will help to refine the appropriate techniques for large-scale offerings at state universities, but the key remains the course structure. Providing students with a singular goal of a research project, not necessarily a paper, supported by incremental, graded events conducted in part through dedicated classroom time with both individual and class discussion offers great potential, as this case study illustrates. As Ayers pointed out in the case of an interdisciplinary course, melding and shaping research interests with classroom content is possible and formative for students, as Brew (2013) has also suggested.

Professors must pay close attention to syllabus writing and design to leave course objectives open and inclusive, inviting student innovation in conversation with instructional material as the semester progresses. As Stephens et al. (2011) and Jones et al. (2012) have demonstrated at Virginia Polytechnic University, students even in large courses can generate meaningful research when they find the outcomes appealing, in their case through local publication, printing, and binding of student materials accompanied by public recognition. Above all, instructors must remember that many undergraduates are relatively inexperienced, in a process of maturation, and looking for inspiration and guidance. We must recall the pride that comes from disciplinary accomplishment, however small. Undergraduate research, in history or elsewhere, offers just such an opportunity whether the product is a publication or simply the student's awareness of a job well done. Structuring courses around research skill development "milestones" can help build the confidence and ability of all involved, from instructor to students.

* The views expressed are those of the authors and do not reflect the official policy or position of the Department of Defense, the US Government, US Air Force Academy, or US Air Force.

References
Antonelli-Carter, L. (2020). In search of the right words: A history teacher's exploration of college students' epistemic beliefs about history. *The History Teacher*, *54*(1), 39-67.

Auchincloss, L. C., Laursen, S. L., Branchaw, J. L., Eagan, K., Graham, M., Hanauer, D. I., Lawrie, G., McLinn, C. M., Pelaez, N., Rowland, S., Towns, M., Trautman, N. M., Varma-Nelson, P., Weston, T. J., & Dolan, E. L. (2014). Assessment of course-based undergraduate research experiences: A meeting report. *CBE—Life Sciences Education, 13*, 29-40.

Battaglia, D., & Walden, P. R. (2020). Undergraduate research programs: Challenges and opportunities. *Perspectives on Undergraduate Research and Mentoring*, *9.1*. https://www.elon.edu/u/academics/undergraduate-research/purm/wp-content/uploads/sites/923/2020/12/Battaglia-Walden_final.pdf

Blakey, G. (1997). Breathing new life into research papers. *College Teaching, 45*(1), 3-6.

Bochner, A., & Ellis, C. (2016). *Evocative autoethnography: Writing lives and telling stories*. Taylor and Francis.

Brew, A. (2013). Understanding the scope of undergraduate research: A framework for curricular and pedagogical decision-making. *Higher Education*, *66*(5), 603-618.

Brown, P. S., & Hargis, J. (2008). Undergraduate research in art history using project based learning. *Journal of Faculty Development*, *22*(2), 152-158.

Calder, L. (2006). Uncoverage: Toward a signature pedagogy for the history survey. *Journal of American History*, *92*(4), 1358-1370.

Corley, C. R. (2013). From mentoring to collaborating: Fostering undergraduate research in history. *The History Teacher, 46*(3), 397-414.

Fitzgerald, W., & Midiri, N. (2013). But is it really research? Undergraduate anxieties in the humanities. *Perspectives on Undergraduate Research and Mentoring*, *2.2*. https://www.elon.edu/u/academics/undergraduate-research/purm/wp-content/uploads/sites/923/2019/06/PURM-2.2-Midiri-Fitz.pdf

Hicks, A., & Howkins, A. (2015). Tipping the iceberg: A collaborative librarian-historian approach to redesigning the undergraduate research assignment. *The History Teacher, 48*(2), 339-370.

Ishiyama, J. (2002). Does early participation in undergraduate research benefit social science and humanities students? *College Student Journal, 36*(3), 380-386.

Jones, K., Barow, M.V., Jr., Stephens, R. P., & O'Hara, S. (2012). Romancing the capstone: National trends, local practice, and student motivation in the history curriculum. *Journal of American* History, *98*(4), 1095-1113.

Lopatto, D. (2010). Undergraduate research as a high-impact student experience. *Peer Review, 12*(2), 27-30.

Manley, E. S., Fertel, R., Schwartzberg, S., & Ticknor, R. (2019). Teaching in the archives: Engaging students and inverting historical methods classes at the Historic New Orleans Collection. *The History Teacher*, *53*(1), 67-105.

Nokes, J. D., & Kesler-Lund, A. (2019). Historians' social literacies: How historians collaborate and write. *The History Teacher*, *52*(3), 369-410.

Pace, D. (2004). The amateur in the operating room: History and the scholarship of teaching and learning. *American Historical Review*, *109*(4), 1171-1192.

Pacifici, L. B., & Thomson, N. (2011). What do they expect? A comparison of student expectations and outcomes of undergraduate research experiences. *Journal of College Science Teaching, 41*(1), 54-60.

Robertson, J., & Blackler, G. (2006). Students' experiences of learning in a research environment. *Higher Education Research and Development*, *25*(3), 215-229.

Shorlidge, E. E., Bangera, G., & Brownell, S. E. (2016). Faculty perspectives on developing and teaching course-based undergraduate research experiences. *BioScience, 66*(1), 54-62.

Stephens, R., Jones, K. W., & Barrow, M. V., Jr. (2011). The book project: Engaging history majors in undergraduate research. *The History Teacher*, *45*(1), 65-80.

Ticknor, C. S. (2017). Mentoring undergraduates in research and creative endeavors. *Perspectives on Undergraduate Research and Mentoring*, *6.1.* https://www.elon.edu/u/academics/undergraduate-research/purm/wp-content/uploads/sites/923/2019/06/Ticknor_6.1.pdf

Townsend, R. B. (2021). Has the decline in history majors hit bottom? *Perspectives on History, March.* https://www.historians.org/publications-and-directories/perspectives-on-history/march-2021/has-the-decline-in-history-majors-hit-bottom-data-from-2018–19-show-lowest-number-since-1980

United States Air Force Academy. (2021a). *Mission*. https://www.usafa.edu/about/mission/

United States Air Force Academy. (2021b). *Core curriculum*. https://www.usafa.edu/academics/core-curriculum/

Wolfgram, S. M., Kaiser, A., Lee, M. C., Ramacher, D., Siverling, K., & Thornwall, M. (2012). In their own words: Student reflections on undergraduate research. *Perspectives on Undergraduate Research and Mentoring, 1.2*. https://www.elon.edu/u/academics/undergraduate-research/purm/wp-content/uploads/sites/923/2019/06/PURM-1.2-Wolfgram.pdf