

Chapter 8

Six Credit Hours for Arizona, the United States, and the World: A Case Study of Teacher Content-Knowledge Preparation and the Creation of Social Studies Courses

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This chapter explores how a collaborative federally funded initiative—the Teaching Foundations Project—addressed the social studies content-area knowledge of future elementary teachers through the combined efforts of university faculty in teacher education and liberal arts and sciences, along with faculty from community colleges in Arizona. As a result, the project developed two courses combining history, political science, geography, and economics. The two lower division courses: “Arizona and The US for Aspiring Elementary Educators [AZ&US],” and “The World for Aspiring Elementary Educators [WORLD],” are now required in the elementary teacher preparation program at Arizona State University.

As we describe the development, evaluation, piloting, and institutionalization of the courses in a rough chronology, three themes emerge:

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- Responsibility and Autonomy in Teacher Education: There are opportunities and challenges in aligning different institutions in shared commitments to teacher preparation;
- The Blessings and Constraints of Major Federal Funding: Having resources as a lever for change brings tensions of compliance and cooperation across institutions;
- Constructions of twenty-first century Learning: There is complex work in the identification and operationalization of theories about what content and pedagogy future elementary teachers need, particularly when faculty from university in teacher education and liberal arts and science, as well as community colleges in Arizona, are all working together.

The Teaching Foundations Project: One Stage in the Pipeline of Teacher Preparation

Reform Context

In September 2009, the US Department of Education announced a major Teacher Quality Enhancement grant to Arizona State University. At the time, the University was already embarking on multiple restructuring initiatives, combining programs, streamlining departments, and establishing new centers. Programs leading to teacher certification were consolidated under what became the Mary Lou Fulton Teachers College at ASU, and this structure required a significant shift in leadership, faculty, and eventually program plans and coursework. These changes were in their opening stages when the TQE grant was awarded.

As a Teacher Quality Grantee, ASU NEXT, as the project was called, was awarded \$33.4 million for five years to meet multiple and ambitious objectives. The results would situate Arizona State University's Mary Lou Fulton Teachers College within an improved pipeline: bringing better prepared teachers into Arizona classrooms by attending to their content-area preparation, their clinical experiences, and their induction into the profession. The project would also improve the Arizona schools in which the new teachers served through professional development toward whole-school reforms.

The response of the leadership of the Mary Lou Fulton Teachers College to the significant needs of Arizona schools, and their vision of the potential of future schools, were driving forces in revising the curriculum. They communicated a sense of urgency about the need to prepare qualified teachers who were well versed in the challenges and realities of schools. At the center of the grant project was the iTeachAZ program. This program required 1 year of student teaching in a residency model. At ASU, as for many programs, elementary teachers are prepared as generalists and complete content-area requirements through introductory and survey courses.

Teacher preparation writ large has often been criticized for its lack of curricular rigor (Labaree, 2004). Whether the criticism is warranted or not, providing stronger

content knowledge for people who would become teachers was one focus of the curriculum revisions that the Teachers College made to its Bachelor of Arts in Elementary Education (BAE) degree to prepare undergraduates for the new intensive clinical experience. The Teachers College revised the BAE degree for elementary teacher certification to include 35–40 additional content-area credit hours. Because of the AZ-mandated 120 credit hour maximum for undergraduate degrees, this meant the new requirements replaced or combined courses previously offered in the Teachers College with coursework to be offered through arts and sciences departments at both Arizona State University and community colleges (Table 8.1).

Collective Responsibility

The Teacher Quality Enhancement Grant enabled Arizona State University to fund work to significantly enhance the content-area preparation of aspiring elementary teachers. It created the Teaching Foundations Project, tasked with developing new or reforming curricula for 40 undergraduate content-area (*not* methods) courses, eight in each of five content areas: the arts, English Language Arts, math, sciences, and social studies.

The grant proposal had asserted, “University colleges of education in Arizona are utterly dependent on the programmatic articulation and academic rigor of community colleges but have failed to work effectively with them.” The Teaching Foundations Project reform method was to establish five statewide content-area consortium groups to carry out curriculum development and implementation. Because over 50 % of the students admitted to ASU’s teacher preparation program transferred from the community college system, the Teaching Foundations Project worked closely with AZ community college partners to create, pilot and implement the new course work.

The Project strategically recruited five ASU leaders (content-area specialists already involved in K-12 teacher professional development and other University out-

Table 8.1 Program revisions

BAE requirement	Old courses	New course requirement
2 Social and Behavioral Science Courses	Any two courses that meets the requirement	GCU/HST 113 AZ&US GCU HST 114 The World
1 Historical Awareness Course	Any course that meets the requirement	GCU/HST 113
1 Awareness of Global Cultures Course	Any course that meets the requirement	GCU HST 114
Arizona and U.S. Constitution State Certification Requirement	A variety of political science courses to select or study for a test	GCU/HST 113

reach programs impacting K-12 education) and paired them with five community college co-leaders to lead each of the consortium groups within the broad disciplinary areas of English Language Arts, math, science, social studies, and the arts.

Shared responsibility required a cultural shift in higher education overall, and teacher preparation specifically. In this case, the cultural shift began as the Mary Lou Fulton Teachers College relinquished some responsibility—“ownership” of course requirements and credit hours—in the preparation of teachers, and utilized the Teaching Foundations Project to support literally statewide collaboration.

This chapter focuses on one dimension of the work of the Teaching Foundations Project: providing a sound foundation in history, civics, economics and geography in the first four undergraduate semesters, before future teachers would take their social studies methods courses in their last two semesters. Significant changes to the social studies content preparation of elementary teachers required faculty to come out of the academic silos in which they typically resided and instead work together. Zeichner and Peña-Sandoval (2015) point out that for many years scholars who advocate for transforming teacher preparation have called for collaboration across universities and local communities to prepare teachers. Among other things, they call for “more shared responsibility for preparing teachers among universities or other program operators, schools, and local communities” (p. 15). The Teaching Foundations Project became the vehicle in which the knowledge of social science content experts in other colleges of the university could combine with that of education experts in Fulton Teachers College.

The development of the courses required institutional and administrative collaborations as well the work of an unusually broad-based and inclusive team, represented here by the authors. The perspectives offered in this piece are important because of how they intersect: while adopting a single voice, the diversity of experience and expertise helps further illuminate the three themes of the case.

The Teaching Foundations Project Director (Turchi) was relatively new clinical faculty in the ASU English Department’s Education Program. As proposed, the TFP had a budget to pay for course development, but not a mandate for change or even a consensus over what that change needed to be (especially in terms of changing other institutions). There were minimal data available that could clearly diagnose the causes of the perceived problem of poor AZ K12 student performance, but the theory of change was that better teacher preparation would ultimately lead to improvement. The Director had substantial teacher education accreditation and policy work to her credit, but was tasked with operationalizing “Great Learners Make Great Teachers” across the University and with its partners.

The Director of the Division of Teacher Preparation in Mary Lou Fulton Teachers College (Hinde) was a social studies content-area methods expert, responsible for overseeing all of the teacher preparation programs as well as managing the broad reorganization of programs, and keenly aware of what students bring to a methods course and student teaching. AZ certification testing for future teachers represented a low bar for content-knowledge expectations, including disproportionate representation of some core knowledge areas. In addition, K12 accountability testing pressured teachers and preservice teachers away from social studies as a subject area

and strongly encouraged the integration of social studies into reading and math instruction instead.

A geography professor (Dorn), served as co-chair of the “Social Studies Consortium” within the Teaching Foundations Project. Already serving as a liaison to the teacher education, he also connected the TFP to faculty teaching locally at ASU and in the community colleges. In addition, as a full professor, he was an experienced navigator of the university course approval system.

An expert K12 teacher and adjunct professor (Ekiss) brought an established network of teacher-leaders to the TFP as co-coordinator of The Arizona Geographic Alliance. The AzGA has 165 teachers in its Teacher Consultant leadership cadre, many of whom provided course materials, supplementary videos of teaching techniques, and pilot instructors to the project.

Strategizing Within the Constraints of Institutional Processes

Urgency of purpose does not sufficiently leverage change, and resources—even the significant federal funding afforded Arizona State University—was just the beginning.

Undergraduate Program Design

The university constraint of 120 total credit hours in any major, and an emphasis on STEM preparation for future elementary teachers, meant that the BAE degree plan revisions ultimately assigned six credit hours for core content knowledge (history, geography, political science, and economics) in social studies. The vision of the Teaching Foundations Project social studies consortium leaders was to create the eight funded courses as contributing parts to what would be two required social studies courses: “Arizona and The US for Aspiring Elementary Educators [AZ&US],” and “The World for Aspiring Elementary Educators [WORLD].” These new courses would replace what had been somewhat random student-chosen electives. One notorious example had been future teachers fulfilling history requirements through enrolling in a popular culture course on the Beatles; more typically, these students were arriving in curriculum methods courses with only knowledge of US history since the Civil War or other limited perspectives on the broad field of social studies.

Discussions with Teachers College advisors about the challenges of efficiently fitting the courses into the revised BAE program had also revealed that the new courses would need to meet “awareness” (historical thinking) and “global awareness” (of other cultures) general education requirements, as well as meeting the Arizona Department of Education requirements for content instruction on the U.S. Constitution and Arizona Constitution. Thus, the first course, AZ&US was

designed to meet social science, historical awareness, and the constitution requirement; the WORLD course had to meet both social science and global awareness requirements. In the parlance of advising, the TFP had to ensure that courses were “double-” or even “triple dipping.” This strategy would enable students to meet general education mandates for graduation while they completed the academic experiences that the Teaching Foundations Project was designing for them, all within the maximum 120 credit hour framework.

As those who have toiled in the field of institutional approvals know, both the university system and the parallel requirements within the community colleges had to be traversed. Multiple committees needed to review the courses in order to earn general studies designators (known as “core” or “basic” at other institutions), and institutional rules frequently meant that these could only be applied to courses that had been offered several semesters as “experimental” or “omnibus” first. Without careful negotiation it would be only then that the courses could be scheduled, have instructors, and be populated by students.

Not surprisingly, there were recurring tensions in the Teaching Foundations Project between the deliberative pace for effective collaboration across institutions and the urgency for Arizona K12 school improvement as promised by the Project. Ironically perhaps, the federal funding was ample, and yet required speedy expenditure: courses needed to be almost simultaneously designed, evaluated, piloted, and established as requirements.

Cooperation and Advocacy

Statewide community college and university articulation processes and agreements were already in place, including initiatives that guaranteed student tuition rates and automatic transfers. Even as the Teaching Foundation Project courses were being created and revised, the leadership of the Project found it necessary to engage in course advocacy that went beyond following institutional processes for articulation (identifying shared courses, aligning requirements, and establishing equivalencies). Advocacy meant recruiting friends and others as participants—establishing credibility and trust, and not just for the project.

As a major teacher education program in the state, and with the funding of the federal grant, Arizona State University was able to push in the direction of its identified objectives for reform. It may seem obvious, but the Teachers College nonetheless needed students who would choose to enroll. The Teachers College communicated to its partners that the BAE requirements were in revision, and that ultimately Project data would be used to make decisions about the quality and necessity of courses in teacher preparation.

The Teaching Foundations Project leadership found that it had to identify gatekeepers within administrative offices and faculty leadership across the state and convince them the new courses were needed. Hard questions about the intentions of the project, such as “are you segregating out the education students?” needed substantial discussion. It did no good to take an accusatory stance and claim that

current courses were “bad.” The Project’s subject-area consortia had to support good conversations across institutions, and connect different constituents.

The new requirements needed to be seen not as a random set of individual decisions, but as an intentional design for teacher quality: teacher education at ASU was restructuring, and partners needed to participate and share in accountability for the quality of teacher educators. Through long meetings and public events held by the Project, as well as regular statewide community college-university articulation meetings, the focus on content-area preparation for future teachers had to be reiterated carefully.

Advising

Even imagining that all the faculty and administrators agreed with the goals and processes of the Teaching Foundation Project, another key requirement for its success was facilitating the role that advisors and other support staff needed to play in implementing the courses. The Project needed advisors from different units across the University and partner community colleges to work together to schedule the courses. Advisors needed to identify the new options for coursework and help steer students toward the recommended sections in order to populate them.

Of more importance: advisors needed to help undergraduates recognize that lower-division coursework is, in fact, relevant to their professional preparation. For the broad population of students that would include future teachers, the Teaching Foundations Project needed to help advisors not only communicate that the courses were *not* “watered-down” for teachers, but that the courses were intended to be more challenging, and that this was a good thing.

We argue that what makes this case important is not the rich resources of grant funding that were available, but that the Project successfully navigated complex institutional, departmental, and individual faculty responses to reform. It was not unreasonable for faculty, even within Arizona State University, to feel they were in competing groups, all in search of a predictable flow of tuition dollars from students into programs. The rhetoric of the original grant proposal had been stark: There would be carrots of compensation to be rewarded to individual course developers and piloters were one lever for change, but there was a stick: that if partners were to refuse to offer the reformed courses, they could get shut out of the teacher education pipeline, insofar as it was controlled by the Teachers College.

The Teaching Foundations Project work in developing, promoting, and institutionalizing new courses also demonstrates that “pipeline” is a very limited metaphor for the many contributions that different players within higher education make to the emergence of a new teacher. Perhaps the better analogy is to the *network* as described by the work of Thomas Hatch at Columbia Teachers College, or even the “village” that is supposed to be able to raise a child. In both cases, multiple contributing forces and influences result in a newly minted teacher. The Project’s claim that “Great Learners Make Great Teachers” focused efforts on curriculum that would

offer great learning experiences to students, in hope that the rest of the pipeline/system/village would shape those students into successful teachers.

Operationalizing Twenty-First Century Learning Ideals

The TFP Rubric

As a first major task of collaboration, The Teaching Foundations Project cross-institutional leadership created a rubric to describe and delineate the qualities of the new/reformed courses. The rubric was drafted utilizing research from across social and learning sciences, and seeking to articulate a shared understanding of rigor, inquiry, and the critical thinking to be engendered. In effect, the goal was to predict and provide the knowledge and skills upon which later coursework would build pedagogical content knowledge (Fig. 8.1).

The intention was that the same Project rubric could be used to inform the design of the courses; to structure the external evaluation; to advocate for the adoption of the courses, based on their qualities; and to inform and provide professional development for the instructors who would offer the courses. Consensus about the rubric as a guiding document, and not an immutably authoritative text, helped overcome the strident language of the original grant proposal and focus the Project leadership's attention on convincing others to embrace the work of reform.

One of the highest values embodied in the rubric was the cultivation of higher-order and critical thinking skills. The Project recognized that each subject area offers students unique skills and experiences; the goal was to enhance student understanding of the relevance of these skills to the real world, at least in part as preparation for teaching. In general, the rubric encouraged the cultivation of student self-reflection about the knowledge, skills and work they produce during their education.

Mason (2007) traces the trends in the idea of critical thinking and its career in education. In a review of philosophical perspectives on critical thinking, Mason suggests that there are competing aspects within its definition that make teaching or even exhorting individuals to "think harder" or "think better" problematic. These include requiring skills such as reasoning; dispositions (such as a predilection for probing questions); and counterintuitive attitudes toward new learning, like skepticism. Questions of whether critical thinking is content-specific (i.e., per discipline), or a single general mode of thinking shaped the rubric: arguments on both sides were compelling; the Teaching Foundations Project rubric took a blended approach.

This rubric attempted to capture the differing processes of inquiry and engagement in each subject while searching for common understandings to inform undergraduate curriculum. For instance, Smith, Ware, Cochran, and

Higher-Order Skills	Basic Level	Intermediate Level	Target
Reading/Thinking/Acting	Materials and texts and directly-delivered instruction exhort students to think and act intentionally	One or two assignments require students to think and act intentionally"	Throughout the course, students are challenged to think and act intentionally Assess the credibility, accuracy and value of information; Identify audience to whom the information is addressed. Analyze and evaluate information; Make reasoned decisions; Take purposeful action; Identify problems; Think through solutions and alternatives; Question; Use evidence to formulate explanations; Justify; Argue, Debate; Predict; Make Estimates, Form hypotheses The course is rich in connections, within and outside the content area of the course
Connections/Multidisciplinary/Interdisciplinary	Materials and texts and directly-delivered instruction exhort students to think about connections within and between disciplines.	One or two assignments require students to make and explore connections within and between disciplines.	Topics are introduced with integration in mind. Connections among topics within a given discipline are explicitly established. Connection between topics within one given discipline and other disciplines are explored and established, preferably through applied situations. Make pairwise connections (e.g., math-science; science-history, etc), and larger clusters (e.g., art-history-science; art-math-science etc); explore connections, interactions, influences, that run between different ways of seeing and thinking about the world.
Authentic Learning Experiences	Relevant connections are named; application of ideas is discussed	Individual or discrete assignments or assessments require students to connect academic learning to broader understandings in applied settings	The course is highly relevant to students and other stakeholders because of the authentic and creative application of academic learning to important day-to-day realities Proposing academically-driven solutions or advancements to a real audience; Accurately interpreting evidence; Assessing appropriate match of audience and message; Identify/formulating key questions; Identify the salient arguments; original data collection and display; sharing/publication of findings; Conducting extensive research, Ongoing communication with numerous stakeholders; Receiving substantial and ongoing formative feedback during development; Authentic and high-profile culminating presentations and summative assessment.
Instruction	Course materials are presented in interesting ways. Students are invited to participate in class discussions.	Course materials are presented in interesting ways. Students are required to participate in class discussions.	Course instruction is highly student-engaging; students think, communicate, and participate at an uncommonly high level on topics that challenge them to apply knowledge, reason, perform skills, and/or create products Examples of ways such instruction is carried out / promoted/ evaluated: RTOP, Discourse in Inquiry Science, The Learning Cycle, Modeling, "Process Drama" History as debate and multiple perspectives, Cognitively Activating Instruction in Mathematics, Environmental Mode in Writing
Assessment	Students are assessed for content-area knowledge and application	Students are assessed for content-area knowledge and synthesis of ideas	Course assessments move beyond basic knowledge-level multiple-choice formats alone to measure students' mastery of reasoning, skill performance, and/or the creation of products Open-ended written essays of reasoning; Research papers; Oral presentations of (individual and group) projects; Science experiment design, execution and reporting; Design a prototype of a sustainable, high-use product; Perform an activity

Fig. 8.1 The Teaching Foundations Project Rubric

Shores (2010) describe courses in mathematical investigations for pre-service teachers that demand students take a more active role in sharing and solving problems with one another. Such a discovery-based approach has been advocated for a variety of subject areas, and there were arguments for and against presumed extreme versions, with fears that the course designs would be process-focused and thus insufficiently rich in content. The Project's only solution was to count on the expertise of course developers, evaluators, and pilot instructors to find the right balance as they worked to meet the descriptors for student engagement in the rubric.

Similarly the Project rubric was informed by work in the sciences by Taylor, Jones, Broadwell, and Oppewal (2008) who contrast scientists' and teachers' perceptions of science education. These findings helped capture the balances between content and pedagogy to which the new curriculum aspired, so that future teachers have applicable content knowledge as well as critical thinking skills from within the disciplines. Lampert's (2007) work on critical thinking dispositions in the arts provided a further example for how this project sought to establish a curriculum that asks future teachers to be creative, to produce and perform works rather than simply consume them. Lampert's work recognizes that problem-solving and higher order thinking is not the unique domain of science, math, logic and philosophy.

The communication- and collaboration-intensive aspects of the rubric reinforced a key value of twenty-first-century education. The Project rubric emphasized the appropriate and substantive use of technology to reinforce several educational objectives: (a) enabling active students individual discovery and construction of knowledge; (b) facilitating the production, performance and/or presentation of what they have learned, thus setting the stage for self-reflective evaluation of their own work and that of peers; (c) communication and sharing of their work with peers to facilitate collaborative editing and production; and (d) finally, the habit of staying current with technology and the new kinds of learning that it may in future enable.

Thus the Teaching Foundations Project rubric constructed the nature of the twenty-first century learner and the kinds of coursework that the leadership collectively believed would prepare teachers for twenty-first century classrooms. Multiple aspects of the rubric are particularly significant for the development of the social studies courses. Hawley, Crowe, and Brooks (2012), suggest that connected learning is critical in a time when students are so often unmoved by, and unlikely to recall, the isolated facts and figures that more typically characterize their education in the core fields within social studies. Darling-Hammond's (2006) analysis of exemplary curricula encourages teachers to develop their students' abilities to solve real-world problems in their concrete richness and cultivate critical thinking in each subject area. And it almost goes without saying that it is essential for twenty-first century teachers to be comfortable with technologies that enable collaboration and communication. These technologies facilitate sharing beyond the walls of the classroom and make students aware of the larger world and facilitate their engagement with it. In addition, for the

social sciences, educational technologies, such as mapping applications and applications that enable data collection, analysis, and presentation would be essential.

Ultimately the Teaching Foundation Project's rubric may appear to be more of a laundry list than a prescription. It was certainly a document that promoted dialogue and collaborative meaning-making far better than it enforced compliance. The Project leadership feared that it would be possible to spend the entire grant period squabbling over terminology, and so chose a different path, one which one leader quipped was evidence that the group was at the early developmental stage of "parallel play." The decision was to move forward with an inclusive rubric where the descriptors could help curriculum designers to each feel a sense of purpose and responsibility to the education of future teachers. The Project had been funded for only one academic semester when the rubric needed to be utilized for summer course design. The available dollars would not wait, nor would the academic calendar and institutional deadlines.

Course Construction

The content of what would become the two required social studies courses—Arizona and United States Social Studies (AZ&US) and World Social Studies (WORLD)—emerged from an ongoing dialogue among the instructors of social studies methods courses. Individuals from across Arizona¹ developed the AZ&US and WORLD course material through the filter of the Project rubric. Leaders and the developers they recruited knew that students typically brought very little basic content knowledge of economics, geography, government, or history to their methods courses. The challenge was to reflect the core disciplines of economics, geography, government, and history in the very limited available course hours.

The course developers were contracted to create instructional content and materials that could be delivered either wholly on-line, hybrid on-line, or in a 15-week face-to-face traditional model. The courses were to describe in detail the instructional activities necessary for "good learning" (the rubric) rather requiring specific texts (a textbook could be recommended) or being dependent on proprietary software platforms or functions that might not be available to all. The Project established an online platform using Moodle (as Learning Management Software) for the courses in order to facilitate course format consistency, interdisciplinary feedback and the formative evaluation process.

¹Teaching Foundations Project leaders from the Maricopa Community Colleges (Dr. Nora Reyes) and Arizona State University (Dorn) assembled a team that included the Mesa Community College political scientist Brian Dille, ASU historians Jeffrey Bass and Heidi Osselaer, ASU geographers Elizabeth Larson and Ron Dorn, and Arizona Geographic Alliance teacher consultants Diane Godfrey and Gale Ekiss.

Box 8.1 URLs for online lectures for the United States and Arizona, and World Social Studies courses

All Teaching Foundations Project courses are available in the ASU Professional Learning Library: <https://pll.asu.edu>

The lectures associated with the Social Studies Courses discussed in this chapter can be found at this URL: https://pll.asu.edu/p/content/public_page/Social_Studies_Consortium_Resources_-_Service_Teachers

Transcripts of all the lectures are available at this URL: <https://www.asu.edu/courses/gcu600/GCU113/113LectureTranscripts/>

The Project leadership recognized that both new courses would have to be teachable by a wide variety of faculty—many serving as adjunct professors and likely bringing varying expertise in history, government, geography, and economics. The course-development team realized that part-time instructors, many experienced K-12 social studies teachers with advanced degrees, would likely end up teaching the vast majority of the students as faculty associates at ASU and as adjuncts in the community colleges. The courses had to have enough flexibility to allow various instructors to mold and modify the content to be able to highlight their individual areas of expertise.

The selected solution became the creation of the two as "flipped classroom" courses, where all instructors would have access to extensive content lectures in the various disciplines of social studies, as well as technology- and writing-rich assignments on which to build. Thus, the team made a decision to develop the other courses for which they had funding as shells that were repositories for a bank of online lectures (Box 8.1; Figs. 8.2 and 8.3): these provided extensive content for required and recommended subjects within the two fully developed courses. The use of the recorded lectures could vary based on the expertise of the instructor.

In the courses (AZ&US and WORLD), the online lectures bank enabled the courses to be delivered online or in a hybrid format. In addition, the original PowerPoint files for these lectures are available to instructors who teach the class face-to-face and wish to use them as a basis for refinement and personalization. The bank of lectures far exceeds the 45-h requirement for content delivery, giving instructors a range of options and giving the aspiring teachers a future resource for when they student teach and then enter professional service. A wealth of materials and classroom activities are available for instructors to adapt and adopt.

Arizona Statement of Rights

Preamble -
We the people of the State of Arizona, grateful to Almighty God for our liberties, do ordain this Constitution.

- Constitution is long, easily amended
- Article 2 is Statement of Rights
- 35 sections

Thematic Maps

This map of Wisconsin illustrates the occurrence of the Polish surname "Zywicki" in Wisconsin using a color scale, with the darkest blue representing the highest density of Zywicki surnames.

Standard 1 - Maps and Other Geographic Representations

Elizabeth Larson
Lecturer
Bio

Fig. 8.2 Screenshots of Adobe Presenter lectures from history, Arizona constitution, and geography for the AZ & US class

New Course Content

Ritter (2012) and Sullivan (2011) help to describe the kinds of integrative, value-based social studies curriculum and instruction to which the courses aspire. The AZ&US course development team created materials to both comply with the Teaching Foundation Project rubric and to establish an assignment sequence that would support a theme selected by the instructor. The theme chosen by the course

Ethnic Groups in Afghanistan



Slide 9 / 23 | Stopped 00:00 / 04:38

Surrender of Japan



Slide 30 / 33 | Stopped 00:00 / 01:38

Central Asia

Elizabeth Lars
Senior Lecturer
Bio

Outline Thumb

Slide Title

- ▶ Central Asia
- ▶ PowerPoint Presentatio...
- ▶ PowerPoint Presentatio...
- ▶ PowerPoint Presentatio...
- ▶ PowerPoint Presentatio...
- ▶ Afghanistan
- ▶ Climate of Afghanistan
- ▶ PowerPoint Presentatio...
- ▶ Ethnic Groups in Afgha...
- ▶ Food Insecurity in Afg...

49 Minutes 30 Seconds R

Greatest Generation

Jeffrey Bass
History Faculty,
State University
Bio

Outline Thumb Notes

Slide Title Du

- U.S. War Effort in Europe 0
- Dwight Eisenhower 0
- Invasion of Normandy 0
- Collapse of Nazi Germ... 1
- U.S. War Effort in the P... 0
- Battle of Midway 0
- Fall of Iwo Jima 0
- Use of Atomic Bomb 0
- ▶ Surrender of Japan 0
- Homefront 0
- End of World War II 0
- Recommended Primary... 0

6 Minutes 15 Seconds R

Fig. 8.3 Screenshots of Adobe Presenter lectures from geography and history for the WORLD class

development team as a model was immigration and the U.S. Mexico border. History assignments involve primary source readings on the history of the borderlands. Geography assignments task students to map of borderlands utilizing online programs to make a mental map, analyze the region of the U.S./Mexico borderlands, make a population geography map of the borderlands using U.S. Census data, comment on videos of labor issues along the border, chronicle

the history of border changes, identify environmental issues along the border, and view historical maps of the border.

These assignments task students with employing computer-based skills to dig deeper into learning the material. For example, geography standards include developing a basic knowledge of physical geography. Rather than simply teach recognition of basic landforms like straits, one assignment, for example, links physical geography to history through children's books and Google Earth. Then, students are assigned to use Google Earth to find specific landforms, craft an aerial view (as a bird would see the setting), take a screenshot of their creation, and label the image.

The course development team for the WORLD class developed a sequence of assignments that includes analyzing Arizona social studies standards for material taught in grades K-8, and students highlight events/phenomena/regions of little familiarity to them. These shape class assignments and discussions. Recorded lectures for the WORLD class are a mixture of geography, history, world government, and basic economics. The sequence explores different world regions. For example, the geography of Europe naturally fits with lectures on the World Wars, the European Union and NATO, as well as on different types of economic systems.

The culminating assignment requires students to develop a webpage (using <http://www.weebly.com/>) on a country of their choice (Fig. 8.5). This is followed by tasking the students to read *This Fleeting World* by David Christian, and asking students to note information that relates to the region of their selected country.

The rest of the semester design links geography, economics, and world government lectures on different regions to a series of intensive assignments that help build a better understanding of global cultures. Each of the assignments mixes readings on different world cultures, tasks that involve use of data analysis online programs like Gapminder (<http://gapminder.org/>), and ends with students focusing on their identified country's website (Fig. 8.4). Dentith (2011) identifies the significant value of such interdisciplinary work in a course when it arises from the meshing of local focus and global context. Bencze (2010) advocates that teacher educators should focus on helping future elementary teachers develop expertise and motivation to utilize technology in their classrooms with children.

Student use of data analysis and graphic-generator sites like Gapminder often takes significant time and mentoring. Many first-year college students are proficient at basic searching but are not experienced in such tasks as taking screenshots and annotating the imagery. Such basic computer tasks are valuable skills for any teacher. Students in this course use these skills further when they analyze data related to women's health issues on their selected country and compare their data with that of other countries in the region and the globe (Figs. 8.5 and 8.6).

Weaving together lectures and assignments, students complete the culminating assignment by developing a webpage on the social studies (economics, geography, government, history) of their selected country. As a stage in the creation of the

A Tour of Poland

INTRODUCTION POPULATION AND SETTLEMENT CULTURE AND SOCIAL DEVELOPMENT POLITICAL AND ECONOMIC
GEOGRAPHY AND ENVIRONMENT HISTORY BLOG



A Slideshow Overviewing the Cultural Universals of Poland

Below is a slideshow of pictures to represent the various aspects of the Polish culture and allow for insight into the traditions, religion, cuisine, etc. of the country of Poland.

The Societal Role of Men and Women in the Polish Culture

The role of men and women in the Polish culture almost appear to be very similar to that of the roles of men and women in American society. While women have led substantial societal roles in government and the work industry, beginning heavily in the 1970s, they have been subjective to discrimination amongst the workplace. Value had been placed on how a woman is able to raise her children or take care of her family much like that of our society as well. Males are given more power in Poland and therefore limited the opportunities for women. During the reign of communism, women had to not only provide nurturing for their families but also provide of incomes. Nowadays since the end of communism for Poland, women were seen as being the primary providers and caretakers of the family and therefore their roles should return to the status of wife and mother. (Curtis, 1992).

Map of Poland amidst the rest of European Russia in 1913

Fig. 8.4 Screenshot of a student's website

pages, students share their work with peers in groups of four or five, and evaluate the webpages using a grading rubric. This also fosters a spirit of cooperation, with the stronger students mentoring and guiding weaker ones. This experience is intended to send a warning shot across the bow of less dedicated students by providing exemplars for their websites.

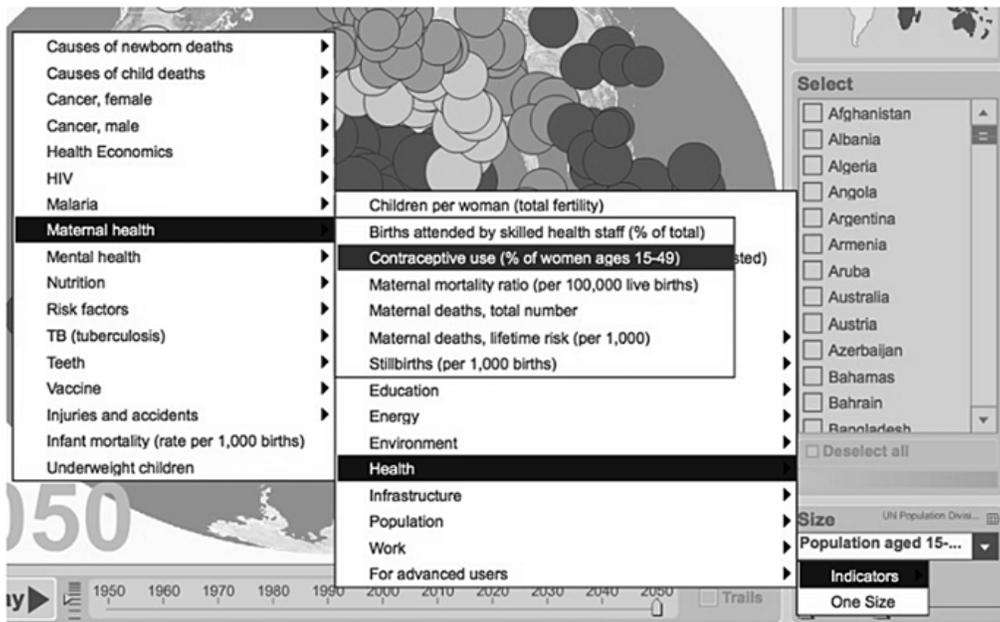


Fig. 8.5 Screenshot of instructions for one of the components of the Gapminder assignment on women's issues

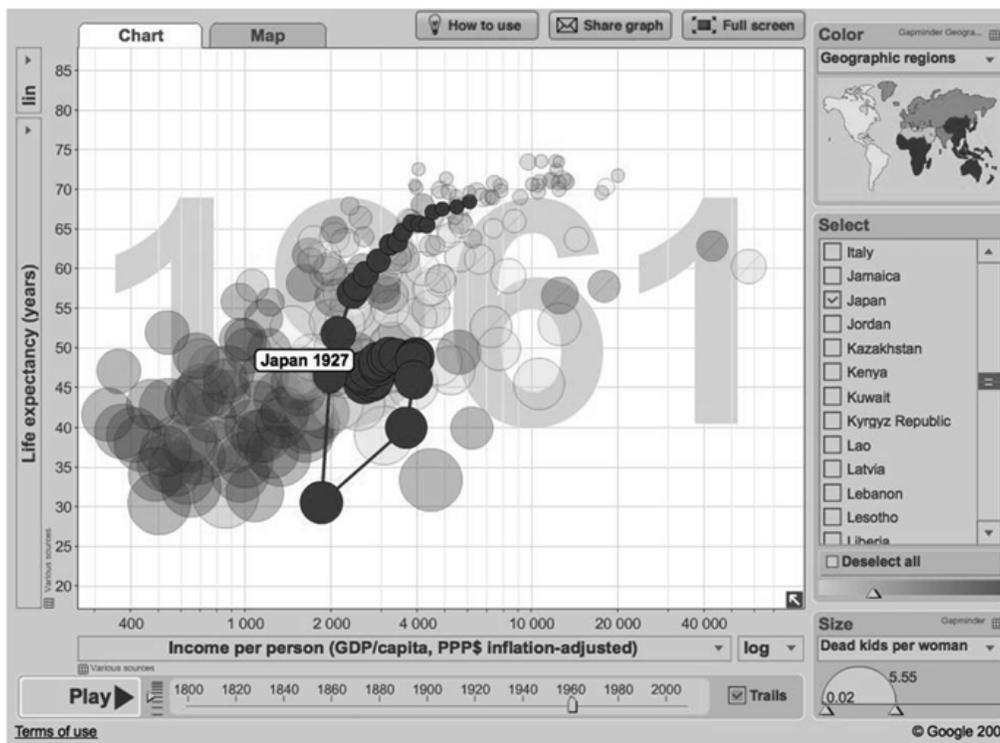


Fig. 8.6 A student work product, where the student's selected country of Japan is tracked over time for the gruesome numbers of children who have died per each woman

Evaluating Course Quality: External Evaluation, Piloting, and On-going Course Reconstruction

The course development process proved tricky and labor-intensive to manage. There were useful discussions about what even constituted a “course”: what components an instructor had a right to expect, and what supports or explanations needed to accompany materials in order for them to be taught effectively by someone other than the course developer. Significant concerns arose about the notion of an “adjunct-ready” course, especially if the instructor did not bring both content-area expertise and some sensitivity or awareness of the needs of future teachers. These questions led to important discussions about the scope and sequence of the overall curriculum under design, but such issues were frequently beyond the purview of the Project.

External Evaluation

As the course materials were being prepared for piloting—being scrutinized by institutional committees and reviewed by potential instructors—they received external evaluation from content-area teacher preparation experts and teacher-leaders from across the country. The external evaluators were recruited from teacher colleges and education departments, and the TFP also invited outstanding K-12 educators from the Teacher Leaders Network² to join in this critical conversation and add more perspectives from K-12 education.

The external evaluation process opened up for scrutiny the assumptions the Project leadership and course developers were making about how the courses would be translated from design to delivery. In the case of veteran faculty who were re-visioning familiar curriculum, it was necessary and taxing for them to be transparent in some of their intentions and explicit in their instructional designs.

Using the established TFP rubric, the reviewers commented on evidence of quality in terms of content rigor; communication- and collaboration-intensive assignments, inquiry-based activities promoting critical thinking, technology use, and how well each course reflected national standards for pre-K-8 education. There was a plan for accountability in having course development carried out “in a fish-bowl,” but course developers were not always comfortable with the scrutiny of their instructional planning. In the case of the social studies courses, the hours and hours of recorded lectures were found to be accurate if not always compelling in their performances; the assignments were praised for their interdisciplinary rigor

²Established in 1999 by what is now the Center for Teaching Quality (Carrboro, NC), this group began as a listserv for highly accomplished and nationally recognized teachers. The purpose of the network continues to be elevating the voices of expert teachers on issues of education policy and practice. The CTQ Collaboratory networks thousands of teachers in a teacher leadership “**action tank**.” <http://www.teachingquality.org/collaboratory>

and intellectual demands, even as the planned options for delivery of the course proved complicated to explain.

The process of external evaluation of the social studies courses led to substantial changes in terms of the identification of additional resources, alternative ways to assess students in online versus face-to-face formats, and a different way of thinking about social studies instruction. These external evaluations came to the course development team about the same time as initial insights from the piloting instructors.

Pilot Instruction

For six academic semesters, the Teaching Foundations Project paid supplemental stipends to more than 100 instructors (of some 3500 students at 15 different higher education institutions) to pilot the course materials developed by the five consortia. For social studies, nine different pilot instructors taught the AZ&US course in both online and face-to-face formats; four different instructors taught the WORLD course also in these varying formats. The AZ&US and WORLD courses were immediately popular with students from many disciplines seeking to meet the general education requirements, and instructors had full enrollment in all offered sections. But as a further example of the challenges of navigating the institutional approval processes, 2012–2013 was the first year that the revised and reformed courses were *required* of students in the BAE program at Arizona State and fully articulated with the community colleges. As a result, Teaching Foundations Project pilot courses were only then populated with future elementary teachers in the later years of the grant.

The Project's pilot instructors utilized an online Professional Learning Library, described further below, to distribute project research information to all students, access all course materials (transferring them as necessary to other learning management systems, such as Blackboard), and to review professional development and related supporting materials for understanding the course materials as part of the Teaching Foundations Project. Pilot instructors reported on their progress with teaching the curriculum, described modifications and adaptations, and posted examples of assignments or other additions to the course, along with their perceptions of impact on student understanding.

A differently envisioned project might have spent more of its resources on professional development for using the course materials. In this case the Project rubric that informed the curriculum design was intended to also guide instructors to make autonomous and arguably accountable decisions about their teaching strategies. It is fair to characterize the Project's message as this: *we know that you, individual pilot instructor and veteran teacher of this material, are already doing a wonderful job. But help us fix the curriculum so that others using these materials will get results that are as good.*

Ongoing Modification

Pilot instructors made modifications to the courses in order to fit their own backgrounds (e.g. experienced elementary school teacher, experienced high school teacher, professor of geography, history or political science). Each semester assignments were tweaked and readings changed. However, the basic structure and concept remains true: the course meets the designated graduation requirements faithfully and also provides a rich content base of knowledge for the aspiring teachers.

The online instructors made the fewest modifications to the material. This is easy to understand, because of the greater reliance on the bank of lectures (Table 8.1) and the online assignments. These courses also utilize a grading program (<http://www.gradeify.com/>) that facilitates student creation of, for instance, annotated imagery modified by free online photo editing software (e.g. making maps, Gapminder products). The Gradeify program also stores feedback to students, so that lengthy explanations on how to correct typical undergraduate writing issues can be re-used. Newly modified feedback can be stored as variations in a rich bank of comments, and instructors can even embed imagery in their feedback.

The greatest modifications to the courses have occurred with the face-to-face instructors, where faculty eschew the online lectures and present the material in their own style, sometimes using the provided PowerPoints and other times developing their presentations. Most have chosen to emphasize their particular discipline: historians focusing more on historical thinking, geographers emphasizing spatial thinking, and political scientists emphasizing critical analysis of governmental issues. In-class work and dynamic discussions may substitute for more mundane online assignments. However, even the face-to-face instructors still utilize the Gradeify program, because it facilitates evaluation of student digital products and greatly increases grading efficiency.

A further example of a modified AZ&US course was a section offered as a freshman cluster, combined with other courses and especially for future educators. As co-taught by two highly experienced elementary educators, the students in this hybrid version of the AZ&US viewed the lectures online, and class time was used to enhance the online learning with activities that increased relevance and understanding of the weekly material. Because the students were aspiring teachers, the in-class instruction focused on learning social studies information (content) in an engaging and meaningful way.

In these hybrid class face-to-face meetings, topics included:

- Discussing particular primary and secondary sources using the strategy of close reading.
- Reading children's literature and discussing the integration of literacy skills with social studies content, noting how good pieces of literature are great springboards to a social studies lesson.
- Sharing the resources found at various social studies websites such as American Memories at the Library of Congress, iCivics.org, National Geographic for Educators, KAET Channel 8 Arizona Stories, and Arizona Geographic Alliance.

- Demonstrating and practicing using technology tools (Google Earth, TimeToast, Glogster, screen shots) on their own electronic devices.
- Providing additional power points, maps and other visuals to convey information about the social studies content.
- Viewing a CD on border issues, *Crossing Arizona*, to give the students access to oral and visual information that was current and pertinent to the immigration issues in Arizona.
- Using K-8 lessons to teach social studies content, thus having the AZ&US students participate in the lessons with their classmates, and modeling exemplary lessons to help them envision the components of a good lesson for when they are eventually exposed to pedagogy in their social studies methods classes.

The Professional Learning Library (PLL)

Each semester, and with the inclusion of various new faculty, the courses continue to evolve wherever they are taught. The Teaching Foundations Project courses are publicly available in the ASU Mary Lou Fulton Teachers College Professional Learning Library (<https://pll.asu.edu>). Developed under the same federal funding, the PLL is an online interactive space, and the Teachers College has since absorbed much of the costs into its budget, so that it is sustainable even as it continues to court grant funding for further innovation.

Each Teaching Foundations Project course includes all the explanations/supporting materials needed for a qualified adjunct to be able to teach with no other professional development and within a short timeframe. Users can find and access learning resources, participate in informal and formal professional learning, connect with other educators locally and across the globe in interest-based communities, and share ideas and learning resources all in one venue. The PLL is a rich resource for the potential or veteran instructors of a content-area course populated by future teachers. In addition, K-8 teacher candidates and veteran teachers can search easily for materials that support learning in the content areas. Access to the PLL supports Arizona teacher certification test preparation, content-area reviews, and school-based curriculum building. Each course is searchable using the Project rubric terms and national (CCSS) and AZ standards.

Impact on Social Studies Methods Courses and Beyond

Thus far, institutional cooperation within ASU has resulted in the courses being cross-listed in history and geography—allowing both disciplines to receive students who will then complete professional studies in the Teachers College. In contrast, cooperation between ASU and the community colleges on these two courses has not been widespread. This is not for a lack of trying amongst the disciplinary areas of

geography, history, and political science—where faculty have put the AZ&US course on the books and teach the class. The problem with systemic adoption rests with the community college advisors who have yet to relinquish the typical or traditional courses that they recommend. There is no incentive for them to vary what they have always done in recommending courses that meet the articulation agreements, even if these still do not teach the core knowledge areas of economics, history, geography, or government. The differences in lower-division course work have intensified the disparity in core knowledge amongst transfer students and ASU students in their social studies methods course.

The methods instructors in the Mary Lou Fulton Teachers College, fortunately, have the bank of online lectures in the PLL. Thus, when a less knowledgeable student is to develop a lesson on a topic, the online lecture and associated readings and activities exist as a ready resource.

The students taking the courses are fully aware of the online lectures that they can and do access during student teaching. Anecdotal e-mails sent by former AZ&US and WORLD students undergoing student teaching indicate the value of the full set of lectures, as they prepare to teach this material. Their mentor teachers have also written e-mails asking permission to share particular lectures with colleagues in districts, and they are told that full access exists in the PLL. Some of the mentor teachers have noted that they let their students watch these lectures as enrichment activities at home. Teaching Foundations Project course materials may enable veteran teachers to rejuvenate their content-area knowledge as well as support new teachers who may have identified content-area knowledge areas that need reinforcement.

Evidence of Impact on K-8 Schools: Directions for Further Research

All the work of the Teaching Foundations Project was intended to make a substantial and measurable contribution to the Arizona teacher pipeline, but as a grant-funded entity, the TFP has come to an end. Because the TQE grant included investment in teacher and student data-tracking infrastructure for the University (which provides at least one third of the teachers in the state) and Arizona's Department of Education, the Mary Lou Fulton Teachers College is beginning to follow future teachers who complete the reformed courses and measure their impact on students in the state.

Teaching Foundations Project leadership believe the goal of coursework creating “great learners” is possible. As one student wrote about an AZ&US course assignment, *“as I got the hang of it, the use of Google Earth became a fun way to learn. I enjoyed trying to find the different pictures and manipulate them to the correct viewpoint. It allows for the students to witness and view the cool beauty of the Earth, while learning, and without ever actually having been there.”*

Another student was similarly impressed by the opportunity to take future students on virtual field trips: “*I really enjoyed this assignment. I had used Google Earth once before, just to look my house up. But I had never used it to look up landforms and streams. It was fun to put in the location and then zoom in a really get a good idea of what the stream or landform looked like. I think this is an effective tool that can be used in a classroom to show kids what landforms look like without having to travel there. It’s like going on a field trip without actually leaving the classroom!*”

Further research is needed to demonstrate the quality of each Teaching Foundations Project course and its impact on undergraduates, but the courses are available and created materials are being accessed globally. Further research efforts should be able to demonstrate that future teachers benefit from the activities and materials in the courses, both in terms of their disciplinary understanding as well as in their ability to explicate knowledge for their own (eventual) K-8 students. Project leadership continues to advocate for strong undergraduate content-area preparation of future teachers through community college partnerships and outreach to Arizona schools and beyond.

The Teaching Foundations Project illustrates the opportunities and challenges in aligning different institutions in shared commitments to teacher preparation. In this case of promoting social studies content knowledge for future teachers, it is clear that taking responsibility for better teacher preparation requires giving up some autonomy and cooperating with diverse faculty and programs. The case further suggests that having federal resources as a lever for change is a blessing, but also a constraint, particularly in terms of the pace of change that accepting the funding requires. Institutional commitments (including ones that promote collaboration) are the only way that changes spurred by funding can be sustained. Finally, the identification and operationalization of theories about the content and learning experiences needed by future elementary teachers is necessary and complex work.

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