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Professional Development for the Advanced Placement[®] Human Geography Teacher: Present Practice and Prospects for Change

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The Advanced Placement[®] Human Geography (AP HG) course has shown tremendous growth since 2001, the first year students took the end-of-course exam. Slightly more than 3,000 students took the exam that year; the number exceeded 163,000 in 2015 (Lanegran and Zeigler 2016) and is expected to grow further still. The College Board describes the course as:

... [the] equivalent to an introductory college-level course in human geography. The course introduces students to the systematic study of patterns and processes that have shaped human understanding, use, and alteration of Earth's surface. Students employ spatial concepts and landscape analysis to examine socioeconomic organization and its environmental consequences. They also learn about the methods and tools geographers use in their research and applications (College Board 2016).

This description shows the course to be rigorous, and the growing demand by students, parents, and schools is exciting. But to match this demand and to maintain quality, rigor, and innovativeness in course delivery, we also need well-trained geography teachers (Lanegran and Zeigler 2016; Sharma 2005). This is not a concern simply for the geography community. As Bednarz (2016, 86) writes, "Teachers are often assigned to teach an AP course without adequate academic preparation, and professional development [PD] in AP subjects is limited." What, then, is adequate preparation for the AP HG teacher? In the best possible world, the AP HG teacher might have an undergraduate geography degree (and even a few graduate-level courses) paired with a teaching degree. Past work

on geography teacher preparation generally (Bednarz, Stoltman, and Lee 2004) shows this to be wishful thinking. This is not meant to suggest that current AP HG teachers are necessarily teaching the course poorly. Rather we aim to use this article to explore the current AP HG professional landscape broadly and to offer observations from a program developed in South Carolina to improve AP HG instruction.

PRESENT PRACTICE

"What kinds of professional development best support AP HG teachers?" (Bednarz 2016, 88).

Preceding an answer to this question is the need to understand how AP HG teachers are currently prepared. Certainly some have had degreed course work in geography, but many will need to rely on continuing PD. The current major PD players for AP HG are the College Board, the National Council for Geographic Education (NCGE), and state geographic alliances. Other ancillary training is available, too. As one might expect, the PD varies considerably in length, presentation (face-to-face vs. online), and teacher status (new to AP HG or experienced). Topics also vary from geography content, to technology/ materials use, to how to best prepare students for the exam format.

PD: The College Board

The College Board, the AP HG exam developer and administrator, provides a variety of AP HG–focused PD. This section is written from the perspective of the second author and, although individual experiences may vary, these examples encompass a common path for many AP HG teachers. Like many other teachers, this author was challenged to personally build geographic content knowledge and develop appropriate pedagogical strategies while having a history disciplinary background. While NCGE and state alliances also formed an important part of his PD, among the first resources used were those from the College Board.

Summer Institutes

The largest College Board offering consists of weeklong summer institutes. These institutes, typically led by veteran AP HG teachers and university faculty, present both geographic content knowledge and pedagogy with the aim of preparing the new AP HG teacher for the first year of the class. A smaller number of summer institutes cater to experienced AP HG teachers. For many, the College Board summer institute represents their first PD focused on AP HG.

Our home state requires AP teachers to add an endorsement to their teaching certificate. Not only is attending a College Board summer institute necessary, but the institute must also offer three hours of graduate credit. Most College Board summer institutes across the country do not offer this graduate credit and, as a result, a partnering university must usually require an extra week of classwork. The net result of this state-specific requirement means that AP HG public school teachers will attend at least one College Board summer institute. In subsequent years, a second institute, where and when time and resources permit, can enable an invaluable refresher on the logistics of AP HG as well as an opportunity to build on geographic content knowledge. "...this author was challenged to personally build geographic content knowledge and develop appropriate pedagogical strategies while having a history disciplinary background."

One-Day Workshops

The College Board also offers workshops in either one- or two-day formats. Both formats are offered in three variations: for new AP teachers, for experienced teachers, and for a mixed group. New teacher workshops are advertised as focusing on AP program basics, course design, and teaching strategies. Workshops for experienced teachers spend more time on disciplinary content, but advertisements do not specify a particular topic. These workshops are generally spread around the country, although events within reasonable driving distance may be difficult to find. Without a membership discount, the events are costly (currently as high as \$275).

"The Reading"

For experienced AP HG teachers, the annual AP Reading presents a unique and very valuable PD opportunity. The Reading is a gathering of AP teachers and college faculty where the free-response section of the exam is scored. While not explicitly designed as PD, the process of scoring the exam provides training in four main areas: content knowledge, pedagogy, test-specific writing preparation, and professional networking.

The Reading unfolds with a very basic structure. Tables with eight readers and a table leader sit distributed around a conference hall. Readers spend the entire week focused on one of the three free-response questions, improving their own content knowledge as the question intent is discussed and possible concepts and examples for answers are reviewed. At the 2016 Reading, teachers had the opportunity to expand their knowledge of agriculture, environmental issues, language and political geography, economic geography, demographics, and gender issues. Student answers present new cases that generate conversations among tablemates, table leaders, and other readers throughout the week.

Pedagogical knowledge expands through a similar process. For example, a 2015 question on refugees and migration resulted in a table discussion that began with lesson ideas for learning push and pull factors. This conversation ultimately evolved into an advanced and more nuanced discussion on how to also teach the range of possible impacts, both positive and negative, of those groups on receiving countries.

One of the primary benefits of AP Reading participation comes with the increased knowledge of, and hands-on training for, test-specific writing. This area produces some of the most direct PD impacts. One difficulty that students and teachers face when preparing for the AP test is interpreting the various command terms (define, identify, explain, discuss) used in questions. A week of training on these terms and prompts gives teachers a deep and clear understanding of how questions are written, how questions should be interpreted, and how to best respond to questions. This knowledge directly impacts future classroom writing instruction.

The last PD benefit of the AP Reading comes with the College Board–sponsored evening events. Three of these provide the most value: the official PD night with a subject-specific keynote speaker, the Open Forum with College Board officials, and the more informal "Night of the Round Tables" lesson sharing event. Collectively, these events provide engaging content; an opportunity to interact with those designing, scoring, and administering the exam; and a chance to share effective teaching with colleagues.

PD: NCGE

NCGE was an early supporter of the exam (development and implementation) and subsequently very active in providing AP HG teachers with the tools and materials to be successful. Materials have included a special issue of the *Journal of Geography* (2016, volume 115, issue 3) dedicated to AP HG topics and exam-taking strategies (NCGE 2016), among others.

NCGE's PD opportunities are similarly extensive. First is the webinar series (a no-cost benefit of NCGE membership) committed to improving geography education in all areas. Begun in 2010, the offerings have included presentations with titles such as "Navigating the Challenges of Teaching AP HG to 9th Graders" and "Exploring Agricultural Geography." Second are the workshop and individual sessions provided at the National Conference on Geography Education. The 2016 meeting in Tampa, Florida, held a full-day preconference and had thirty-five AP HG–themed sessions during the course of the regular meeting. The preconference was attended by approximately thirty teachers, but there was no such event held in 2017. A very successful initiative has been the "bell ringer" program (e-mailed daily warm-up questions for students). More than one thousand people have signed up for this resource.

PD: Geographic Alliances

At the society level, National Geographic's current support for AP HG is meager. Online support provides a basic overview of the course outline, mostly of information readily found elsewhere, and a few links to lessons and mapmaking resources (National Geographic Society 2016). Where the society has the greatest potential impact is through its Network of Alliances for Geographic Education. Since 1986, these fifty-four largely state-level alliances have created a wide array of materials and provided PD for teachers generally.

An informal survey of alliance coordinators revealed variable engagement with AP HG teachers (J. T. Mitchell, personal communication: e-mail survey with coordinators, Network of Alliances for Geographic Education, December 16, 2016). Of the fifty-four coordinators, thirty-three provided information on past AP HG PD and their future intentions. Of those thirty-three alliances, slightly more than half (seventeen) had offered AP HG–focused PD within the past five years. This PD included stand-alone workshops as well as short sessions at other events like state social studies conferences. The number of events ranged from one to ten and averaged slightly less than one event per year (4.5 events over five years). However, only fifteen of the thirty-three responding alliances planned to host an AP HG–focused event in 2017. Coordinators from states not providing PD for AP HG teachers mostly cited a lack of demand due to too few AP HG teachers in their state. Despite the current uneven nature of AP HG support in the alliance network, the alliances are positioned to do good work when sufficiently resourced.¹

PD: Other Avenues

For all AP HG teachers, new and veteran, degreed in geography or not, much of the training offered by the College Board represents a one-time event. States with active geographic alliances can offer teachers various annual PD opportunities. NCGE provides great resources at their conferences as well as online. Yet beyond these groups, other effective, formal training opportunities exist. Three examples are the National Consortium for Teaching about Asia (NCTA), the Choices Program, and Esri. First, while not specifically oriented toward geography, the content provided by NCTA has helped produce lessons in population, culture, political, and economic geography units for AP HG. Second, the Choices Program based at Brown University has also long offered summer seminars for teachers, and much of their curriculum has a geographic perspective built in. Third, Esri, the company behind ArcGIS software, has also offered extensive teacher trainings. Their Teachers Teaching Teachers GIS summer institute has provided excellent hands-on GIS training that has found its way into the AP HG classroom (Murphy and Hare 2016).

"The online AP Human Geography Teacher Community, as well as Facebook posts and Twitter chats, helps teachers navigate content confusion and share useful pedagogy." One last resource, while not explicitly PD, is a robust set of social media platforms that host a variety of forums useful to the AP HG teacher. The online AP Human Geography Teacher Community, as well as Facebook posts and Twitter chats, helps teachers navigate content confusion and share useful pedagogy.

The previous sections have outlined the PD available from the College Board, NCGE, and the geographic alliance network broadly: the current AP HG PD landscape. To improve on these offerings, we use the next section to highlight a successful PD model taken by the South Carolina Geographic Alliance over the past decade.

THE SOUTH CAROLINA MODEL

The demand for the AP HG course in South Carolina is high. While ranking twenty-third in population among the District of Columbia and the other 49 states, the state ranks tenth in the number of test takers (4,102 in 2014; Lanegran and Zeigler 2016). The state's ratio of test takers to the general state population ranks fifth overall. Records held by the South Carolina Geographic Alliance (SCGA), deemed better than those kept by the state department of education, count ninety-five AP HG teachers at seventy-nine high schools in 2015; however, these teachers and schools may or may not offer the course on a regular basis.

Recognizing AP HG growth in the state prompted the SCGA to begin offering PD specifically geared toward this teacher group. Commencing in 2008, a full-day workshop has been conducted annually and from the start AP HG teachers have been part of the planning and program content. For example, the general topic for the day (e.g., agricul-tural geography) is determined by a vote by previous attendees. The SCGA then goes about securing content speakers (often university faculty or business community members), teachers with a particular interest in that subtopic willing to showcase lesson ideas, and appropriate supporting curriculum materials such as books. The SCGA also convened an AP HG Working Group of six teachers in 2014 to provide additional guidance for implementing recommendations that come from end-of-workshop evaluations.

The Workshop Model: Practical Concerns

What makes for a successful AP HG workshop? Solid content and useful materials are a must, but effective preparation also is key. Audience development is a first and ongoing task. Where is AP HG taught in your state and by whom? State departments of education may have this information; ours did not, so we created our own list. A graduate student working with the SCGA called every high school in the state and asked whether AP HG was taught and, if so, collected the contact information for each teacher doing so. This serves as our invitee list each year and it is supplemented with other names regularly (e.g., new teachers as schools add the course).

Developing the program content is the next step and is discussed in the following section. Assuming for now that this is complete, communication, funding, and other logistics must be considered. Where will you host the event and how will you provide parking? We use classrooms at our host university and have access to free parking on Saturdays. What other expenses will you have and is a registration fee necessary? Our costs have included stipends for faculty/guest speakers, program printing, lunch, coffee breaks, and materials/ books given to each participant. A modest registration fee primarily covers food expenses and the remainder is shouldered by other SCGA funds. An additional hurdle that we have encountered relates to off-site events like field trips. For example, security concerns at a distribution facility required us to collect birthdate and driver's license information one week prior to the event or teacher entry to the facility would have been prohibited.

The Workshop Model: Program Content, Strategies, Materials

From the beginning, the workshop model has included a mix of geography content, pedagogic strategies, and sharing ideas and materials. The day is often divided into five main time blocks: two content sessions in the morning, a period for lunch, and two content sessions in the afternoon. Most time periods are sixty to seventy-five minutes depending the activity's need. If a field trip is planned, this activity occurs after lunch to allow participants to simply drive home at the completion of the tour.

Table 1 provides an overview of the broad geography topics, strategies, and materials (along with attendance numbers) for the past ten years. Years 2008 and 2009 brought in university geography faculty for content lectures and "veteran" AP HG teachers to discuss lesson ideas. An exam review panel, populated by teachers who have participated in the AP HG Reading, has explained how the test is graded and offered tips for helping students toward greater exam success. This general program outline was continued through 2016; the first field trip was offered in 2010 and followed by others in 2012 and 2016.

Content speakers have included geography faculty specializing in development, urban and gender, migration, tourism, energy, and geographic information systems. Four times, "outside" speakers were added to the mix. These included the state director of agricultural literacy programs from the Farm Bureau Federation, the former chair of the state chamber of commerce, and twice the "speakers" came from NCGE's webinar archive. Any ma-

Year	Geography Topic	Features	Number of Attendees		
2008 Political		Content lectures: African development Palestine-Israel conflict Strategies: Exam review panel Resources: "Intro to Human Geography Reader"	27		
2009	Cultural	Content lecture: Turkish cultural landscapes Strategies: Cultural lessons (2) Exam review panel Resources: "Goode's World Atlas"	31		
2010	Urban	Content lecture: Urban patterns/models Strategies: GIS urban/population lab Field trip: Downtown walking tour/Sanborn Maps Resources: Local/state maps	31		

Table 1. Topics and Special Features of AP HG Workshops, 2008–2017

(continued)

Year	Geography Topic	Features	Number of Attendees 33	
2011	Economic	Content lecture: Chair, state chamber of commerce Strategies: GIS site location lab Shipping industry lesson Resources: Local/state maps		
2012	Agriculture	Content lecture: Agriculture in the classroom NCGE agriculture webinar Field trip: Urban sustainable farm Resources: Local/state maps	41	
2013	Political	Content lecture: Sudan conflict NCGE political webinar Strategies: Borders lesson Exam review panel Resources: "Borderlines and Borderlands" book	33	
2014	GIS	Strategies: Freeware GIS demonstration Story maps demonstration Mobile device data collection <i>Resources:</i> Local/state maps	34	
2015	Population	Content lecture: Global migration trends Strategies: Population lessons (2) Resources: Local/state maps	46	
2016	Economic	Content lecture: Global oil production Field trip: Amazon fulfillment/distribution center Resources: "Oil" book	37	
2017	Cultural	Joint Meeting: State Social Studies Council Content lecture: Culture and race/ethnicity/gender Strategies: Lesson review panel Working with other AP courses Resources: "Pop Culture, Geopolitics, Identity" book	67	

 Table 1. (Continued)

NCGE = National Council for Geographic Education.

terials used by the speakers (PowerPoint files, readings, handouts) are provided to each participant at the workshop close. The specific content presented within a broad topic (e.g., conflict in Sudan for political geography) is largely driven by speaker availability. However, where there is a request for very specific instruction, such as how to bring GIS into the AP HG classroom (Murphy and Hare 2016), we do attempt to accommodate this.

Lesson plan sessions primarily consist of a teacher-led demonstration followed by a discussion of how the lesson was received by students. An example would be using the Gapminder program to visualize the Demographic Transition Model (Thompson and Roberge 2015). Teachers also bring lessons of their own to swap, as well as materials (e.g., extra copies of textbooks). AP HG newcomers find this particularly helpful.

Field trips have included (1) a downtown walking tour to investigate urban change using Sanborn fire insurance maps (a particularly useful resource in this state since the maps are available online for each South Carolina city); (2) a trip to a local sustainable farm (of interest, most of the teachers had not been to a farm before); and (3) a trip to an Amazon fulfillment/distribution center. The last experience in particular was eye-opening: a hive of activity abuzz with conveyor belts, forklifts, trailer trucks, and assorted products that represent interconnected transportation and logistics systems in a service-sector-heavy United States.

The final portion of the program includes the distribution of a wide range of well-vetted materials tailored to the day's topics. In addition to alliance-created maps and posters of local use and significance, participants have left with the following books, among other materials:

- Introductory Reader in Human Geography, 2007 (Moseley, Lanegran, and Pandit)
- Borderlines and Borderlands, 2010 (Diener and Hagen)
- Goode's Atlas, 2010 (Veregin)
- Popular Culture, Geopolitics, and Identity, 2010 (Dittmer)
- Oil, 2012 (Bridge and Le Billon)
- On the Map, 2013 (Garfield)
- Global Energy Dilemmas, 2014 (Bradshaw)

New Direction?

An opportunity was presented in 2017 that changed the workshop format. The South Carolina Council for the Social Studies (SCCSS) began offering PD for AP courses in the past few years, focusing primarily on AP U.S. History, AP World History, and AP European History. In 2016 the council offered an AP HG workshop separately and without the assistance of the geographic alliance. The alliance did make speaker suggestions, but overall the event was not well attended compared to alliance-sponsored events. Rather than competing, we saw this as an opening to share the AP HG course with a larger audience.

The 2017 event was a joint conference, sponsored by SCCSS but hosted by the SCGA, and included sessions for teachers of all four AP courses. In addition to specific sessions for AP HG teachers on cultural geography, joint sessions were held with teachers of all four courses. This served as a "back door" way for us to expose the other teachers to the AP HG course outline, to see AP HG as more than just maps, and to have them begin thinking about how the AP HG course might support the teaching in their own AP course. In these common issues sessions, each course outline was briefly described and a conversation followed on possible points of collaboration.

The 2017 event was attended by sixty-seven educators; twenty-seven taught AP HG. Well regarded overall, the event was praised for "the attempt to bring together social studies AP courses," but we also heard that "I prefer the SCGA focus on AP HG workshops as we have done in past. I get more info, content, and resources from that than from the combined AP workshop." This was an expected critique and we will need to carefully

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weigh "cross-pollination" potential versus serving the needs of AP HG educators when planning future workshops.

PROGRAM EFFECTIVENESS

The SCGA collects evaluations for each of its PD events and has data for each AP HG workshop. Table 2 is a summation; a change in the evaluation for comparative purposes to other affinity groups (e.g., Writing Improvement Network) created a slightly different set of questions for 2015, 2016, and 2017.

In the absence of student data (test outcomes have been very difficult to acquire), we chose to have attendees rate both their knowledge of the topics *prior* to the workshop and their confidence in teaching the material *after* the experience. On a Likert-type scale of 1 to 5 (poor to excellent), teachers generally report middling scores around 3. The lowest prior score was 2.98 for the urbanization workshop, and the highest prior score was 3.50

Table 2. Workshop Evaluations

2008–2014: 1 = poor, 5 = excellent

				Year			
Question	2008	2009	2010	2011	2012	2013	2014
Rate your knowledge level about workshop topic prior to today.	3.28	3.29	2.98	3.17	3.00	3.36	3.50
My confidence level in teaching this material after this workshop is:	4.09	4.21	4.11	4.18	4.44	4.32	3.90
Rate the quality of the materials provided during this workshop.	5.00	4.79	4.83	4.65	4.96	4.79	4.70
Overall quality of the workshop was:	4.94	4.83	4.75	4.68	4.88	4.82	4.70

2015–2017: % agree; no participants selected "disagree" or "strongly disagree" for any item.

	Strongly Agree			Agree		
Question	2015	2016	2017	2015	2016	2017
This PD opportunity will help me carry out my role more effectively.	76%	92%	89%	23%	8%	11%
This PD opportunity will enhance my ability to support and sustain quality education.	83%	95%	91%	17%	5%	9%
My confidence level in teaching this material <i>after</i> this workshop is higher.	73%	95%	64%	27%	5%	36%
Overall, this was a valuable professional development opportunity.	79%	100%	86%	21%	0%	14%

PD = professional development.

Present Practice and Prospects for Change

for the GIS workshop. Teachers report higher confidence post-workshop for each event. Of interest, the smallest increase pre to post was for the GIS workshop, perhaps suggesting overconfidence going into the topic and then coming face-to-face with its content and technical complexities. With slightly different questions, the 2015–2017 results are similar: 100 percent agree or strongly agree that their confidence in teaching the material post-event is higher. Other results related to the quality of materials provided and the event as a whole are likewise favorable.

Written comments consistently highlight the materials received:

This was one of the best workshops I've ever attended. As a new teacher, I appreciate any and all resources to help me teach students. This workshop led me through the process of incorporating materials in my own classroom and helped me understand the overall expectations of this class. I appreciate your dedication to teachers and our students. I will really enjoy bragging about the materials I received and encourage others to participate next time (2008).

Comments also addressed the content and exam strategy sessions:

I appreciate the content lectures and the session on free response questions (FRQs) was especially helpful (as a 2nd year AP teacher). The trip to Amazon was amazing (2016)!

Suggestions for workshop improvement are consistently of two types: (1) a request for more time on each topic (including a frequent appeal to have more than one workshop annually) and (2) maintaining a balance between content and test preparation:

I really love the lecture/scholastic/academic side of things, but I worry that the test prep side of the course is left out. A session on FRQs might be good (2015).

We also have data—albeit limited—that go beyond a teacher's self-efficacy assessment. Early in the development process of the AP HG workshop model, our state department of education requested information on the effectiveness of alliance PD programming. During this data-gathering process, AP HG teachers in the state were surveyed. From those responses (approximately twenty-five), we learned that 72 percent of the SCGA-trained teachers (i.e., those attending the alliance-run AP HG workshops) had an average pass rate higher than the state average (SCGA 2014). A "pass" includes students scoring three, four, or five, making their effort potentially qualify for college credit. The comparative years and rates for the state versus the SCGA were as follows: 2009, 46 percent versus 52 percent; 2010, 48 percent versus 52 percent; and 2011, 55 percent versus 60 percent. These positive results led the alliance to continue the program and attempt to grow its attendance.

CONCLUSIONS

We close this article with observations on the AP HG course as well as thoughts on the workshop model featured here. Although we believe that we have created a solid model worth emulating by other states, external factors may generate the need for change. For example, the AP HG course is likely to see a redesign within the next decade (Lanegran and Zeigler 2016). Future changes to the course outline and contemporary thinking by geography practitioners (see Bednarz 2016, regarding the knowledge of the powerful versus powerful knowledge) will undoubtedly influence the *content* presented at workshops, as would approaches toward exam *strategies* if there was a change to the exam structure. Two areas in particular, geospatial technologies and critical geography, are thought to be important movers (Lanegran and Zeigler 2016), with the former already showing up regularly

"...72 percent of the SCGA-trained teachers (i.e., those attending the alliance-run AP HG workshops) had an average pass rate higher than the state average." (Murphy and Hare 2016) and the latter focused on the power dynamics behind spatial decision making and the spatial distributions of power (Leib and Smothers-Marcello 2016). In addition, how the AP HG course pairs with a proposed Advanced Placement Geographic Information Science and Technology (AP GIST) course, if successful, remains to be seen (AP GIST 2016). The take-home point here: PD providers and AP HG teachers must stay abreast of changes in the field, as geography by its very nature does not stand still for long. Each group also must continue to engage each other as to not perpetuate a gap between the academy and school-level geography teaching (Mackie and Kazmierczak 2017; Lanegran and Zeigler 2016; Jo and Milson 2013).

Regarding the AP HG workshop model discussed here, we intend to maintain the basic model but also will consult with our teacher working group before making substantive changes. This group has been very helpful to growing the workshops. For example, creating our own potential participant database (as opposed to relying on the state department of education) came from their suggestions.

Pending available personnel and monetary resources, we may offer more than one event annually. One such new event for 2017 was a two-day workshop focused on the needs of the beginning AP HG teacher. Held in early August before the start of the academic school year, the event focused on syllabus development and lesson sharing to "ramp up" teachers who, from our experience, are quite anxious about teaching the course. In addition to this event and the regular PD described here, we plan to offer specific AP HG sessions in other settings such as our Geofest conference or at the SCCSS annual meeting. Of importance, we also must remember that AP HG is not the only high school geography course offered. We have state standards for a course titled "World Geography," and there is the geography course in the International Baccalaureate program, too. For those teachers the specifics of the AP HG exam would be unnecessary, but they would undoubtedly benefit from the geography content sessions. In any case, there is more potential for growth yet.

The AP HG course, taught well, is good, rigorous geography. By allowing students to "both acquire and produce knowledge in novel ways" (Bednarz 2016, 87), immersion in the AP HG course content is an example of the powerful knowledge we hope our students will encounter and develop. How can we ensure that this happens? Among three recommendations made by Hildebrant (2016, 138) regarding the future of AP HG, the final one was stated directly: "... we must keep up with teacher training." On this point we agree wholeheartedly. The work begun in South Carolina has shown positive results in terms of teacher attitudes and self-efficacy and appears to be translating to greater student achievement on the AP HG exam. We hope that the suggestions offered in this article guide other PD providers toward similar success.

NOTES

¹In June 2017, the National Geographic Society announced that it would enact a new regional education funding model rather than direct monetary support to state-based alliances. This change will challenge states to identify other funding streams to enact the AP HG programming we suggest in this article.

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