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Big History and Liberal Education in the Undergraduate Classroom

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Abstract

Big History instructors at the university level have long argued that the field of Big History is ideal for teaching the skills and goals of liberal education (Benjamin 2009). The Association of American Colleges and Universities (AAC&U) has articulated a set of learning outcomes that can only be achieved within the context of contemporary liberal education. This article uses student feedback to argue that Big History is the ideal course to help university undergraduate students achieve the set of learning outcomes promoted by the AAC&U.

Keywords: *Big History, Liberal Education, undergraduate general education.*

Introduction

Since 2005 the Association of American Colleges and Universities has been promoting a set of essential learning outcomes for college students through an approach known as Liberal Education & America's Promise (AAC&U 2005). The AAC&U's argument is that these learning outcomes can only be developed effectively within the context of a contemporary liberal education. Beginning in school and continuing across their college studies, students need to prepare for the challenges of the 21st century by acquiring a broad knowledge base and a specific set of skills, paraphrased as follows:

1. Knowledge of human cultures and the physical and natural world through study in the sciences and mathematics, social sciences, humanities, histories, languages, and the arts. This knowledge is best focused by engagement with big questions, both contemporary and enduring.

2. A set of intellectual and practical skills, including inquiry and analysis, critical and creative thinking, written and oral communication, quantitative literacy, information literacy, and teamwork and problem solving. These skills need to be practiced extensively, across the curriculum, in the context of progressively more challenging problems, projects, and standards for performance.

3. Personal and social responsibility, including civic knowledge and engagement – local and global – intercultural knowledge and competence, ethical

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reasoning and action, and foundations and skills for lifelong learning. These responsibilities are best anchored through active involvement with diverse communities and real-world challenges.

4. Integrative and applied learning, including synthesis and advanced accomplishment across general and specialized studies. This learning is best demonstrated through the application of knowledge, skills, and responsibilities to new settings and complex problems (AAC&U 2008).

Those of us deeply involved with teaching Big History at the college level are convinced that the course offers almost the quintessential liberal education experience for students, and is an ideal mechanism for developing the complete set of essential learning outcomes embodied in the LEAP goals. The author, who has co-authored the first college-level Big History textbook (Christian, Brown and Benjamin 2014), has been teaching Big History for more than two decades: eight years at Macquarie University in Sydney, Australia, and thirteen years at Grand Valley State University in Michigan in the United States. This experience has consistently demonstrated that Big History engages students at all levels of their cognitive, ethical and emotional reasoning, helps them work through a wide range of very real problems and dissonances in the relative safety of the classroom, and imparts precisely the sort of knowledge and skills that LEAP articulates.

At GVSU I have taught Big History both as a regular one-semester general education course, and also as a Foundational Interdisciplinary Sequence for first-year students in the Frederik J. Meijer Honors College. Both approaches have proven to be successful but the Honors course is much more intensive, and the experience is more profound. The class meets for three hours twice a week and is taught over the entire academic year, allowing students to work through the Big History story in considerable depth. The materials for the course are provided by a Big History textbook, supplemented by readings from monographs by David Christian, Cynthia Brown and Fred Spier, and by shorter chapters and articles found in collections such as that edited by Barry Rodrigue, Leonid Grinin and Andrey Korotayev (Christian 2008; Brown 2012; Spier 2015; Rodrigue, Grinin and Korotayev 2015). In addition, I regularly invite guest instructors from a wide range of disciplines into the class, to give students the benefit of their expertise in physics, geology, biology, archaeology, anthropology, history, religion, economics and environmental science to list just a few.

In both versions of the course, data in the form of responses to questionnaires and also from anonymous student evaluations demonstrates precisely what sort of learning is going on. Student comments in these evaluations clearly show that exposure to Big History helps them not only acquire the knowledge and skills that LEAP aspires to, but also allow them to consider deeply personal questions such as, why are they at university in the first place; what do they

hope to take from this experience; how they plan to spend their lives; and what ultimately is the meaning or purpose of human existence, particularly their own. This brief paper uses anonymous student comments to argue that Big History helps students attain the essential learning outcomes articulated within the LEAP goals. Most of these student comments come from anonymous student evaluations completed by first-year students in the Meijer Honors College at GVSU, and were collected during the 2012/13 and 2013/14 academic years. Comments are grouped according to the specific LEAP goals noted above.

1. The Knowledge of Human Cultures and the Physical and Natural World

Many students appreciate the interdisciplinary nature of Big History, which uses the knowledge gathered by a wide range of physical, life and social sciences and the humanities to unfold the history of the cosmos, planet, and all life upon it. This allows students to make connections between different spheres of knowledge and their lives in a way that was inconceivable before taking the course. The following comments are typical:

‘I learned that everything is interconnected, and different subjects are only different if we make them out to be that way’.

‘I loved that this course connected back to several other classes I was taking which helped me learn more’.

‘The range of material and the connections we were drawing between all the different subjects is what distinguished this course. The course was rigorous in that it involved so many disciplines’.

‘The course was a comprehensive, holistic overview of the entire history of the universe. We were expected to engage in discussion with our fellow students on a variety of subjects, from what constitutes art and the development and current functions of political systems, to the future of medical technology and ecological sustainability’.

‘This course was vital in filling in huge gaps in my understanding of the scientific account of the creation of the entire universe as we know it, theories about how it occurred (and the massive amount we do not know), as well as acquainting me (for the first time) with the classic explanations of the origins of life, and a thorough explanation of the central dogma of biology, natural selection’.

‘The most important concept I received from this course is that there are multiple lenses and viewpoints that a person can view the world through. This course focuses on the differences and similarities between human history and science and their real world applications’.

‘It was really rewarding to be able to hear from experts as we progressed because it gave us context and a note of importance to each subject we studied. Big History helped illustrate that every problem can be approached through

multiple disciplines, and that you might need to use multiple approaches to comprehend the full weight of the problem’.

‘Most important for me was a comprehensive view of human, earth and cosmic history that I think is invaluable to an open, tolerant worldview’.

2. Intellectual and Practical Skills

Many students also appreciate the very concrete skills they acquire in a Big History course, particularly improvements in their academic writing, oral communication, and critical thinking. The following comments are typical:

‘I was challenged by our research papers and presentations, as they required a higher level of research than was expected at high school, and I felt like the research I was doing really mattered’.

‘The classroom atmosphere made room for all beliefs and everyone became more comfortable in discussing controversial issues’.

‘The most important thing for me was writing the first essay about reconciling science and religion; it really made me think, and I enjoyed the class discussion we had about it as well’.

‘The biggest factor that differentiated this class from other regular courses was the huge amount of meaningful discussion we had. The discussions challenged me to think critically about my own mindset while accepting the ideas of others at the same time’.

‘The most important gains were an intensive development of my critical thinking, writing and oral expression skills’.

3. Personal and Social Responsibility

Currently the Honors Big History course is taught mostly in the classroom, although a significant number of co-curricular activities are included over the course of the school year. I can envision future versions of the course that will include more experiential learning, and opportunities for students to engage more closely with diverse communities. The course does deal on a weekly basis with very real problems, as students often note.

‘This course has changed my perspective on the role of humans in the world, and the possibilities inherent in the complexities found within our own brains, as well as excitingly, or dauntingly, the vast expanse of all that we have yet to discover, both in the connectivity of life on our planet and beyond’.

‘A multidisciplinary course, this honors class led me to question so much about my beliefs, thoughts, and my future at the university in such a positive manner. Instead of just teaching the content, the instructor encouraged the entire class to adopt new ways of looking at situations and asked them to consider other possibilities to beliefs some students had held for their entire lives’.

‘I have a deeper understanding of the world around me, and the part that I, along with my generation, play in global society’.

‘I gained an understanding of how the different disciplines of study collaborate and work together so perfectly to help us discover a thorough understanding of the world around us. Big History stresses critical thinking about historical perspectives as well as current issues’.

‘The course helped me develop a perspective on the challenges facing the modern world, as well as build up a knowledge based on so many subjects including geology, sustainability, agriculture and genetics’.

4. Integrative and Applied Learning

Learning is always more effective when students believe the knowledge and skills they are acquiring actually matter in the real world. If taught effectively, Big History first equips students with a broad (and often surprisingly deep) knowledge of the world; then uses challenging research essay writing and weekly symposium-style discussions to help students develop their writing, oral communication and critical thinking skills; and finally forces students to apply this knowledge and skill set to the very real problems facing human communities in the present and near future. Students should come away from the course with a sense that this educational experience has really mattered, and that they are much better equipped to face these challenges as a result to studying Big History. The following comments give some sense that this is occurring.

‘This class forced me to think about problems in the world today. I have learned so much from this class that I can relate to my life every day’.

‘This course has heavily influenced me and taught me to seek a bigger perspective on the world, other people and issues’.

‘This course has given me a greater understanding of my place in the world and a feeling that I can really make a difference’.

‘We are the future, and Big History methods and perspectives need to become ingrained in society so that our future can be as bright as possible. I also learned so much about history, but it all made sense and fitted together to create what the world is now’.

‘The second semester of the course was particularly interesting because we progressed into near future challenges facing the human race. Learning about these issues really helped stress the importance of what we had learned’.

‘This course ultimately allowed me to see how I can apply these concepts to my field of study, such as anthropology, biology, psychology and philosophy. With these applications I can understand more about the world and now have the cognitive and conceptual skills to make the world a better place through the decisions I make both individually and collectively with others’.

Conclusion

Both versions of the undergraduate Big History course I have taught for the past two decades are effective in helping students find connections between

different areas of human knowledge, and to acquire the skills to express and analyze these connections in thoughtful writing and discussion. Both versions also help students gain a better understanding of the meaning of liberal education; and both model the possibility of exchanging deeply held views on challenging subjects including science and faith in frank discussions that remain civil and deeply satisfying. (I do not need to point out to my students that opportunities for this are so rare in other contexts). Students in both versions of the course also gain a holistic, all-encompassing sense of the *whole* of the past, and how it continues to influence the present and future.

In the more intensive two-semester Honors Big History course, students are initially focused on the safe environment Big History provides for holding deep discussions on challenging subjects; and also on the possibility of rigorously analyzing long-held views for the first time in their lives. These high performing honors students also appreciate the fact that more rigorous academic skills (such as research, writing, speaking and critical thinking) are being developed; and also that Big History is helping them see connections between the past and present, and between different academic disciplines, that they had been previously unaware of. There also emerges, even in the first semester, a hint of greater possibilities and potential in their lives that they had imagined before.

By the end of the second semester, after eight months of intensive Big History engagement inside and outside the classroom, students are feeling much better equipped to understand the world around them, and the responsible role that they must play in global society. They have acquired multiple lenses through which to view the world, and a real sense of the potential to lead a more deeply meaningful life in so many ways. Frankly, can an educator ever ask for more than this? In both versions of the course, but more particularly in the Honors class, students are acquiring precisely the sort of higher order, profoundly meaningful learning outcomes that Big History is ideally equipped to generate, the same learning outcomes that the AAC&U is advocating through their LEAP goals.

I am extremely conscious of, and grateful for, the tremendous work colleagues have done in creating and teaching the Big History Project high school version of the course, and other versions that are even being taught in elementary schools around the world (Big History Project).¹ But as a university professor, particularly one who specializes in teaching first-year Honors students in arguably the most significant year of their lives, I am convinced that Big History offers the quintessential foundational interdisciplinary general education experience. Big History deserves to be at the heart of every general education program at any global college that is dedicated to providing their students with a genuine liberal education.

¹ URL: www.bighistoryproject.com.

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