Assessing AASCU's Global Challenges Blended Model Course

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Abstract

In 2006 the American Association of State Colleges and Universities (AASCU) launched its Global Engagement Initiative and began developing a set of curricular tools for faculty to use in educating globally competent citizens. In 2011 the initiative developed a national blended model course. That course has now been delivered to more than 1,200 students on 15 campuses across the country and abroad. This paper explores the effectiveness of the national blended course in meeting its stated learning objectives. In 2013-14, pre/post-tests were conducted on three pilot campuses. The pre/post-tests indicate that students' knowledge about global issues and ways to get involved in civic life increased after taking the model course. Progress toward some of the other learning objectives was less clear, and the authors make recommendations for further study.

Keywords: Global Engagement Initiative, curricular tools, blended course, civic life

Introduction

Global education is a topic gaining increased interest among educators. The Association of American Colleges & Universities (AAC&U), for example, has convened global learning meetings, collected global learning publications, and features projects aimed at global learning. On their webpage American Association of Colleges and Universities (AAC&U) notes that they are engaged in addressing "diversity, global engagement, and social responsibility as compelling educational and institutional priorities that help students and campuses engage the social, civic, and economic challenges of a diverse and unequal world."[1] In a 2010 policy brief, National Education Association (NEA) President, Dennis Van Roekel, stated, "The 21st century isn't coming; it's already here. And our students have the opportunity and challenge of living and working in a diverse and rapidly changing world. Public schools must prepare our young people to understand and address global issues, and educators must re-examine their teaching strategies and curriculum so that all students can thrive in this global and interdependent society" (National Education Association, 2010). And in his article "Bringing Global Education to the Core of the Undergraduate Curriculum," Harvard's Fernando M. Reimers argues, "Living in a highly interdependent world is not an option – but at present, being educated to do so competently is. … [T]he undergraduate curriculum as a whole is not adequately preparing most students to be capable global citizens" (Reimers, 2014).

In an effort to address this 21st century imperative, the American Association of State Colleges and Universities (AASCU) has developed an innovative blended model curriculum aimed at educating globally competent citizens. Launched in 2006, AASCU's innovative project gathered teaching faculty from eight participating institutions to develop teaching and learning tools aimed at educating globally competent citizens. Over the past eight years the project has evolved into the AASCU Global Engagement Initiative and the AASCU Global Challenges Project, and it has resulted in the creation of the first in a series of AASCU national blended courses.[2]

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[1] Association of American Colleges and Universities.
https://www.aacu.org/resources/global-learning
[2] The AASCU national blended course concept involves the collaborative creation of template courses that can be taught on many campuses, adaptable to include particular emphasis on local elements and considerations. The courses all focus on citizenship development, and although available at any level, they are particularly

The AASCU Global Challenges course is designed to teach students the knowledge, skills and attitudes necessary to be globally competent citizens. In this article, faculty from the lead campus for the AASCU Global Challenges Project describe the course design, outline the course learning outcomes, and share preliminary results of efforts to assess the effectiveness of the curriculum. (e.g., To what extent does this blended learning course promote global citizenship?) These preliminary results are based upon surveys of students enrolled in the model course during the Fall 2013, Spring 2014, and Summer 2014 semesters on three scholar campuses. The evidence indicates an increase in knowledge about global issues as well as a positive shift in attitudes among students enrolled in the course. This article also explores limitations and weaknesses in the survey instrument and offers recommendations for future research.

AASCU Global Challenges Course

The AASCU Global Challenges project began with institutes and workshops where the AASCU Global Engagement Scholars (scholars) shared resources aimed at educating globally competent citizens. To guide that work, the scholars sought input from 21 faculty across the eight original participating AASCU campuses in order to identify the "knowledge, skills, and attitudes that university students should acquire in college to become globally competent citizens" (Falk, et al. 2012, p. 11). From those interviews, the scholars identified qualities of globally competent graduates (Falk, et al. 2012, pp. 11-12). The global competence qualities the scholars identified are similar in multiple important respects to the Global Learning VALUE Rubric created by AAC&U,[3] including qualities such as global curiosity and empathy, civic responsibility, a contextual understanding of historical and contemporary issues as well as the physical world,

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targeted at first year students. The courses are blended (i.e.: part face-to-face and part online) and are available in any learning management system. *Global Challenges: Promise & Peril in the 21st Century* is the first of the AASCU national blended model courses. The second blended model course, still under development, is the Stewardship of Public Lands.

[3] AAC&U Global Learning VALUE Rubric can be accessed at: https://www.aacu.org/value/rubrics/global-learning.

and a systemic perspective that facilitates understanding and analysis of complex and interrelated issues.

In a 2008 effort to assess their work, the scholars developed a survey instrument for use on their campuses. At this point in time, the participating campuses were each delivering courses informed by the Center for Strategic and International Studies' (CSIS) Seven Revolutions framework[4] and influenced by assignments and activities recommended by the initiative's scholars, but the individual course design and delivery varied from campus to campus. The survey focused only on self-perceptions, requesting a response on a 5-point scale from (1) strongly disagree to (5) strongly agree to the following statements:

1. I know quite a lot about the main issues facing the world today.

2. I know quite a lot about the main issues that will likely face the world in 2025.

3. I feel confident in forecasting what the world will be like in 2025.

4. I am committed to civic involvement (e.g., voting).

5. I am very knowledgeable about how to get involved in civic life.

6. I believe my actions can make a difference in shaping the future.

7. I am optimistic about the future.

8. It is important to withhold judgment when exposed to new information.

9. I am curious about what happens in other parts of the world.

10. I feel a connection to people in different parts of the world.

11. Events happening in other parts of the world affect my daily life.

12. I read information about other parts of the world regularly.

The scholars deployed the pre/post-survey in courses on six of the participating campuses, with 519 responses to the pre-test and 392 responses to the post-test. The assessment revealed attitudinal changes after taking the various related courses. Students reported that they gained knowledge about global issues and felt more engaged and empowered about being involved in local and global

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[4] http://csis.org/program/seven-revolutions

issues. They also felt more connected to people around the world and appreciated the importance of being connected (Shapiro & Mills, 2010).

These 2008 survey results were encouraging, but they were limited. In 2012 the AASCU project took on its current work in creating national blended model courses, beginning with the global engagement initiative. To build their blended model course, the scholars had to adapt the project learning objectives in order to develop a set of learning objectives more appropriate for the Global Challenges model course. In addition to the AASCU project objectives and AAC&U Global Learning VALUE rubric, the scholars looked to Bloom's Taxonomy, recognizing the desirability of designing course-specific learning objectives that would guide a student from the identification of facts related to the seven key drivers of change identified by CSIS, to applying those facts, to analyzing the challenges, to evaluating strategies for addressing the challenges, and ultimately to the creation of solutions to these global challenges (see, e.g., Bloom, et al., 1956).

With these guides in mind, the scholars developed the following overall course objectives:

A globally competent citizen: The general goal for this course is for students to become more knowledgeable about global issues and to move toward being a globally competent citizen. Students will achieve key learning objectives related to knowledge, skills, and attitudes associated with becoming a globally competent citizen.

Knowledge and Skills. Upon completion of the course, students will be able to:

1. identify issues and impacts for key global challenges, drawing from various disciplines;
2. explain the relationships between and among global challenges;
3. employ credible resources in learning about key global challenges (information literacy);
4. analyze political, economic, social, and/or environmental impacts of key global challenges;
5. evaluate various approaches and/or solutions to key global challenges;
6. create a solution towards a more preferable future for issues related to one or more key global challenges.

Attitudes. Upon completion of the course, students will have:

1. developed a sense of global empathy (i.e. how these trends are affecting and being affected by different groups of people);
2. recognized the importance of key global challenges;
3. acquired an intellectual curiosity about key global challenges;
4. developed an interest in taking action and being engaged locally or globally.

The model course contains ten lessons:

- Lesson 1: Introduction
- Lesson 2: Population
- Lesson 3: Resources
- Lesson 4: Technology
- Lesson 5: Information
- Lesson 6: Economies
- Lesson 7: Conflict
- Lesson 8: Governance
- Lesson 9: Global Citizenship
- Lesson 10: Summary and Integration

While the attitudinal objectives remain identical for each lesson, the knowledge and skills objectives adapt to the content associated with that lesson. The scholars chose to keep the framework for the objectives as consistent as possible. Thus, for lessons 2-8 (the seven key drivers of change), the five learning objectives retain the progression up Bloom's taxonomy from identifying issues, to explaining relationships, to employing credible resources, to analyzing challenges and evaluating solutions. The learning objectives, then, are as follows:

Upon completion of this lesson, students will be able to:

1. identify issues, trends, and impacts related to _____ drawing from various disciplines;
2. explain the relationships between _____ and other global challenges;
3. employ credible resources and evaluate the integrity of available information, data, and research about _____ (information literacy);

4. analyze political, economic, social, and/or environmental impacts of _____challenges;

5. evaluate approaches and/or solutions to _____ challenges.

For each lesson, the blanks in the template are filled with the subtopics contained in that lesson. For example, in Lesson 2 the topic is population, with subtopics of population growth, aging, migration, and urbanization. Learning objectives for Lessons 1, 9 and 10 were slightly different. Lesson 1 encompasses introductory materials including critical thinking and futures perspectives; Lesson 9: Global Citizenship focuses more on the highest levels of Bloom's taxonomy, exploring solutions to the challenges; and Lesson 10: Summary and Integration reiterates all the learning objectives.

The scholars then created and selected content designed to achieve these course specific learning objectives. The course content includes reading materials, videos and open educational resources as well as assignments including quizzes and exams, a Global Village blog, an In the News blog, and a Critical Thinking Discussion Board. Each assignment in the course was directly related to one or more of the course learning objectives, and every course learning objective had at least one assignment aimed at meeting that goal. Faculty who adopted the blended model course could use the course turnkey or adapt the course to meet additional or other learning objectives associated with their specific course or campus.

This paper is the first study of whether the AASCU course is successful in achieving its learning objectives. As shown by the learning objectives, great efforts are to be placed on improving students' knowledge and shaping/changing their attitudes about key global issues. Therefore, this study focuses on three primary research questions:

1. To what extent do students who take a blended learning course on global challenges believe they have learned more about key global issues?
2. To what extent do students who take a blended learning course on global challenges demonstrate increased knowledge about key global issues?
3. To what extent do students who take a blended learning course on global challenges demonstrate more positive attitudes about key global issues and their ability to influence them?

Methodology

In 2013, the scholars renewed the project's assessment efforts. Assessing the achievement of all learning objectives required examination of not only students' attitudes but also their knowledge and skills pertaining to the course content. Thus, although the 2008 survey provided valuable attitudinal questions to study, scholars needed a more encompassing evaluation. With the development of the Global Challenges blended model course, the design, content, and delivery of the course became more uniform, which made it more appropriate for assessment across multiple campuses.

At the beginning of a participating Global Challenges course, each student in the class received a survey link that directed him/her to an online survey questionnaire. Students likewise received a link to take the same survey after they finished the class. As surveys were distributed to the same class, the same group of students participated in both the pre-test and post-test.

Compared with the 2008 assessment, which mainly explored students' attitudes, the new survey sought to test the efficacy of the more specific knowledge and skills (see Appendix A). The new survey included seven of the twelve questions in the 2008 assessment. It also broke one question in the 2008 assessment into two questions, each addressing students' attitudes regarding their efficacy of action but exploring that sense of efficacy in both the local and the global arena. The new survey then asked students to rate their knowledge in several topic areas associated with the course content (e.g., population, resources, technology, information, economies, conflict, and governance). Besides assessing students' perceived knowledge, the survey also asked nine multiple-choice questions aimed at determining students' actual knowledge of specific facts covered in the various content areas. The survey questions focused primarily on learning objectives associated with identifying issues and trends, as well as attitudinal objectives such as global empathy, recognition of the importance of global issues, intellectual curiosity about global challenges, and interest in taking action. Questions were also asked to gather demographic data such as gender, year in school, age, nationality, institution, major area of study, and course delivery method.

The revised survey was administered during the Fall 2013, Spring 2014, and Summer 2014 semesters on three pilot campuses: Fort Hays State University (Kansas), Richard Stockton College (New Jersey), and University of Minnesota-

Duluth. All three campuses are AASCU Global Engagement Scholar campuses, and all three campuses used the blended model course.

A total of 113 students participated in the pre-test surveys, and 87 students participated in the post-test surveys. Among them, 91.5% were traditional students in the 18-23 age group; 37.4% were male and 62.6% were female. Underclassmen (freshmen and sophomore students) comprised 77.2% of the respondents while upperclassmen (juniors and seniors) made up 22.8%. Of the respondents, 87.3% identified as U.S. citizens, while 12.7% indicated they were international students (Chinese, Turkish, and German). Two of the pilot campuses offered the pre/post-test in versions of the course that were delivered online. About sixty percent (59.4%) of the respondents indicated they took the course in a fully online environment. (The detailed demographic information for the pre-test and post-test surveys can be found in Table 1.)

Cross-tabulation analyses indicate that students in the pre-test surveys were different from those in the post-test in terms year in school, institution and course delivery method. There were more sophomore and junior students in the pre-test surveys than in the post-test surveys and there were more online students in the post-test than in the pre-test. All of the students in the Summer 2014 section of the course at Richard Stockton College were freshman and all of them were taking the course fully online. As compared to the other two institutions, Richard Stockton College had the highest response rate on the post-tests. This is the reason for the smaller representation of sophomore and junior students as well as on campus students in the post-test sample. Thus there are some differences between the pre/post-test samples. However, there is no significant difference between the pre- and post-tests in terms of gender, age, nationality and area of study.

Table 1: Demographic Information

	Pretest	**Posttest**	**Total**
Age	*(n=113)*	*(n=87)*	*(n=200)*
Under 18	3.5%	1.1%	2.5%
18 - 23	90.3%	93.1%	91.5%
24 and older	6.2%	5.7%	6.0%
Gender	*(n=110)*	*(n=85)*	*(n=195)*
Male	37.3%	37.6%	37.4%
Female	62.7%	62.4%	62.6%
Year in School	*(n=110)*	*(n=87)*	*(n=197)*
First year	58.2%	73.6%	65.0%
Sophomore	18.2%	4.6%	12.2%
Junior	10.9%	4.6%	8.1%
Senior	12.7%	17.2%	14.7%
Nationality	*(n=110)*	*(n=87)*	*(n=197)*
United States	87.3%	87.4%	87.3%
Others	12.7%	12.6%	12.7%
Institution	*(n=108)*	*(n=86)*	*(n=194)*
Fort Hays State University	30.6%	24.4%	27.8%
Richard Stockton College	56.5%	72.1%	63.4%
University of Minnesota, Duluth	13.0%	3.5%	8.8%
Course Delivery Method	*(n=106)*	*(n=86)*	*(n=192)*
Online	52.8%	67.4%	59.4%
Face to face	47.2%	32.6%	40.6%
Area of Study	*(n=106)*	*(n=85)*	*(n=191)*
Humanities/Fine Arts	9.4%	10.6%	9.9%
Social Science	17.9%	16.5%	17.3%
Natural Science	13.2%	17.6%	15.2%
Health Science	18.9%	17.6%	18.3%
Business	17.0%	16.5%	16.8%
Education	7.5%	5.9%	6.8%
Other	16.0%	15.3%	15.7%

All the questions about students' attitudes and knowledge in the assessment were measured at the ordinal level using a 5-point Likert scale. When comparing how students' attitudes and knowledge changed before and after taking the class, the relationship between ordinal variables (attitudes and knowledge) and a nominal variable (test) was examined. Chi-square tests were conducted to test the statistical significance of the relationships and Cramer's V was used to examine the strength of the relationship. If the learning objectives were achieved, we expected significant positive shift in students' attitudes and improvement of knowledge from the pre-test to post-test.

Results

Changes in students' attitudes and knowledge are reported in Tables 2, 3 and 4. In general, there was significant improvement of both perceived and actual knowledge regarding global issues. Researchers also observed some positive shift in student attitudes.

Table 2 shows the changes of student attitudes toward global issues. In the pre-test, 40.2% of students agreed or strongly agreed that they knew "quite a lot about the most important trends facing the world today." In the post-test, students who agreed or strongly agreed rose to 79.8%. The post-test results also demonstrated a statistically significant increase in the percentage of students who "read information about other parts of the world regularly" (31.8% in the pre-test compared to 52.5% in the post-test).

Students felt more connected to people in different parts of the world after taking the course; however, this was not a statistically significant result. Interestingly, results varied greatly between the fall/spring and summer tests. The combined fall/spring data showed a drop from 54.9% to 42.9% of those who agreed/strongly agreed that they felt more connected to different parts of the world as between the pre and post-tests. However, the summer data showed an increase from 48.3% to 72.2%.

Students became more knowledgeable about how to get involved in civic life, an increase from 33.6% in the pre-test to 62.2% in the post-test. There was also an increase in commitment to civic involvement (44.8% to 61%), but that increase was not statistically significant.

Table 2: Students' Attitudes toward Global Issues

	% of Students Who Agreed or Strongly Agreed		Cramer's V	
	Pretest (n=107)	*Posttest (n=82)*		
I know quite a lot about the most important trends facing the world today	40.2%	79.8%	0.483	**
I am committed to civic involvement (e.g., voting, public policy issues, contacting local officials)	44.8%	61.0%	0.204	
I am very knowledgeable about how to get involved in civic life	33.6%	62.2%	0.297	**
I believe my actions as an individual citizen can make a difference in shaping the future of my local community	85.0%	79.3%	0.223	*
I believe my actions as an individual citizen can have an effect on the global community	68.2%	69.5%	0.179	
I am curious about what happens in other parts of the world	83.2%	85.3%	0.133	
I feel a connection to people in different parts of the world	51.4%	62.2%	0.179	
Events happening in other parts of the world affect my daily life	58.5%	68.3%	0.152	
I read information about other parts of the world regularly	31.8%	52.5%	0.223	*
It is important to know about key global challenges[1]	87.9%	86.6%	0.232	*

* significant at the 0.05 level; ** significant at the 0.01 level

[1] The percentages are very close in pretest and posttest, but respondents' opinions became more polarized in the post-test. Post-test had a lower level of "agree" and a higher level of "strongly agree" than pre-test. Similarly, there was a lower level of "disagree" and a higher level of "strongly disagree" in the post-test than in the pretest.

Overall there was a greater sense of efficacy in shaping local than in shaping global communities. The percentage of students who believed their actions can make a difference in shaping the future of their local communities dropped from 85% in the pre-test to 79.3% in the post-test. The percentage of students who believed their actions can make a difference in shaping the future of the global community remained almost unchanged (68.2% compared to 69.5%). Interestingly, the strength of agreement increased as between pre and post-tests regarding shaping both the local (strongly agreed increased from 27.1% to 41.5%) and global community (strongly agreed increased from 18.7% to 30.5%) (Figures 1 and 2).

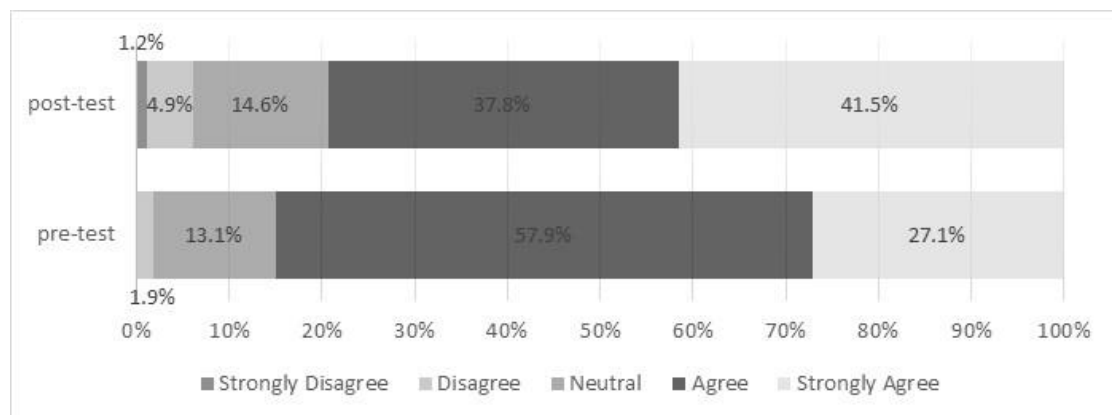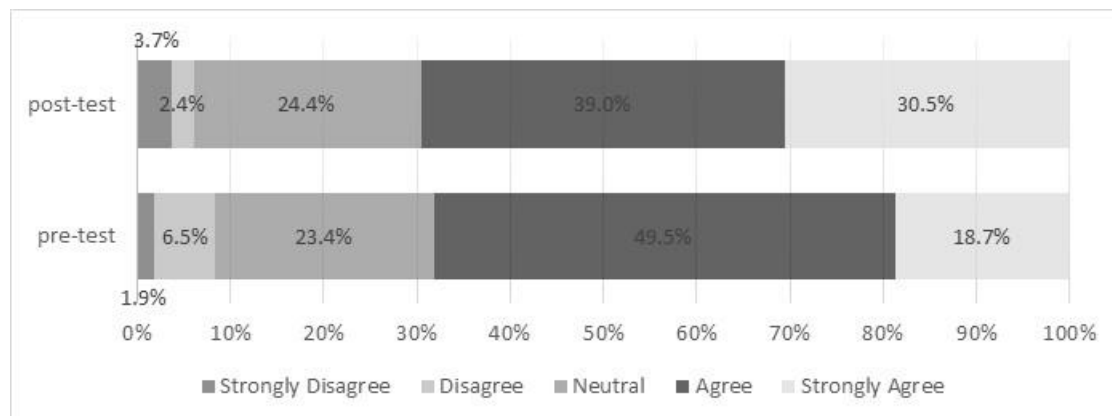*Figure 1: Sense of Efficacy Regarding Shaping Local Community*

Figure 2: Sense of Efficacy Regarding Shaping Global Community

Students' perceived knowledge had statistically significant increase over every topic area associated with the course content (Table 3). The improvements over

water resources, global economy, conflict resolution and international organizations rose by more than 40%.

Table 3: Students' Knowledge about Course-related Topic Areas

	% of Students Who Felt They Have Strong or Very Strong Knowledge		Cramer's V	
	Pretest (n=104)	*Posttest (n=82)*		
Population Demographics	24.0%	74.4%	0.549	**
Water Resources	26.0%	78.1%	0.565	**
Climate Change	43.3%	68.2%	0.306	**
Information Technology	49.1%	75.3%	0.366	**
Computers	46.2%	73.2%	0.296	**
Biotechnology	26.9%	62.2%	0.433	**
Global Economies	18.3%	63.4%	0.483	**
Warfare	26.9%	60.9%	0.449	**
Conflict Resolution	24.1%	62.2%	0.481	**
International Organizations[1]	21.1%	62.6%	0.499	**

* significant at the 0.05 level; ** significant at the 0.01 level

[1] Posttest n=80

Table 4 shows students' actual knowledge change over nine specific facts covered by the course. Percentages of students giving correct answers to all fact-based items increased between the pre and post-tests, and those increases were statistically significant for all but one question. Growth was most pronounced in areas related to the economy.

Table 4: Students' Knowledge about Specific Facts

	% of Students Who Gave the Correct Answer		Cramer's V	
	Pretest (n=102)	*Posttest (n=80)*		
Total Population of the World	78.4%	96.3%	0.257	**
Demand for Water, Food and Energy	70.6%	85.0%	0.170	*
Transhumanism	73.2%[1]	86.3%	0.160	*
Big Data	31.0%[2]	55.0%	0.242	**
Economic Integration	51.5%[3]	71.8%[4]	0.206	**
BRICS	40.4%[3]	92.4%[5]	0.537	**
Causes of Global Conflict	74.7%[3]	88.6%[5]	0.175	*
Weapons of Mass Destruction	85.0%	91.0%[4]	0.091	
State Actor[2]	49.0%	78.5%[5]	0.302	**

* significant at the 0.05 level; ** significant at the 0.01 level

[1] n=97, [2] n=100, [3] n=99, [4] n=78, [5] n=79

Discussion and Recommendations

Preliminary pre/post-test results indicate that the AASCU Global Challenges curriculum and model course increased students' perceptions about their level of knowledge and increased their actual knowledge about global issues. The preliminary results also indicate that students taking the blended learning course demonstrated an increased consumption of global information as well as an increase in knowledge about ways in which one might get involved in civic life. What is less clear from the survey results is whether the course increased students' global empathy or their sense of efficacy in addressing significant global challenges. Moreover, several of the specific knowledge-based content questions

may not be particularly good content items for use in assessing specific knowledge gains as a significant percentage of students appeared to already possess some of that knowledge as they entered the class.

The survey also revealed some findings that demand further exploration in the future. Students were regularly required to read about other parts of the world during the course, so although it is encouraging to see a significant increase of global news readership (Table 2), it is disappointing that the post-test results suggested that only slightly more than half of the respondents were doing so. It is also unknown whether the increase was strictly related to the course or whether it suggested a habit that continued after completion of the course.

The Global Village assignment, in particular, was designed to address the global empathy learning objective. Some sections of the course in the fall/spring did not use this assignment while all sections of the summer course used it. No questions were asked in the survey to differentiate which respondents were in sections that used the assignment. This may explain some disparate results between the fall/spring and summer surveys.

It is not clear why knowledge about how to become civically engaged increased more significantly than commitment to civic engagement. This may be due to a shift in knowledge and perception from a simple to a more nuanced understanding of the difficulties in addressing global challenges; students may be transitioning from the mindset of the myth of the "savior complex" to a more realistic approach.

Students had very high pre-test scores for some of the pre-test questions asking about actual knowledge (Table 4). For example, more than 70% of the students selected the correct answer in the pre-test for five of the nine fact questions. Coupled with students' reporting that their knowledge about the global issues improved significantly, this may suggest that some of the fact questions selected for the pre/post-test were not effective measures of the areas of student learning. The pre-test scores may provide some indication of which questions were better representative of new content (e.g. the questions regarding economic integration, BRICS and state actors). Another possible factor impacting the survey data is that the pre/post-tests were self-administered. It is possible that although students were assured no grade was involved, they may have sought answers to pre-test questions while taking the pre-test.

A limitation of this assessment effort is that the survey instrument did not look at every learning objective included in the course. Indeed, the questions focused on a single knowledge/skill item (i.e.: identifying issues and trends) together with all the attitudinal items. Missing are the knowledge and skills items higher up on Bloom's taxonomy, items such as the ability to make connections, employ credible resources, analyze impacts, and evaluate approaches. The course itself included assignments to help individual faculty determine whether individual students had met those learning objects. Future assessment could attempt to measure such growth by either examining the completed assignments or by developing survey questions aimed at examining growth in those areas.

The weaknesses and limitations noted raise questions about the effectiveness of the survey instrument in ascertaining progress toward some of the desired learning objectives. The scholars may need to revisit the instrument in order to include questions that better address these issues and, therefore, provide a clearer understanding of the course's impact. Further study may help to better identify which assignments are most successful in bringing about desired learning outcomes.

The scholars should revisit the instrument in order to include questions that better address these issues and, therefore, provide a clearer understanding of the course's impact. Specifically:

1. The survey should collect information about which assignments students were asked to complete in their section of the course so as to better measure the effectiveness of specific assignments in achieving the desired learning objectives.
2. Scholars may wish to consider survey questions aimed at ascertaining whether students believe that their interest in reading about global issues has increased in ways that will continue beyond the course.
3. The survey should ask additional questions to better ascertain the course's impact on students' sense of efficacy and commitment to civic engagement. Open-ended questions may be desirable.
4. The content questions should be redesigned to better capture new content rather than content that a significant percentage of students already possess prior to taking the course.
5. The scholars should consider whether control features are possible to ensure students do not look up content answers during the pre/post-tests.

6. The scholars should consider adding survey questions that measure more of the knowledge and skills objectives for the course. It would desirable for the assessment efforts to include questions aimed at students' ability to explain relationships, employ credible resources, analyze impacts, and evaluate approaches.

The pre-test/post-test research design of this study should also be identified as a limitation in examining the results obtained. The number of students taking the post-test was less than the number that took the pre-test, and the students who completed the post-test might have responded differently than those who did not (experimental "mortality"). Future studies could make concerted efforts to have a higher response rate on the post-test and to include in the analysis only those students who completed both the pre- and post-tests.

Conclusion

Global education is important in preparing students to live and work effectively in the 21st century. AASCU's Global Challenges blended course is designed to educate globally competent citizens. This paper presented an assessment conducted on three campuses that adopted the Global Challenges model course. The pre/post-test research suggested that the course was effective to a great extent in achieving its learning objectives. Significant improvements were found in students' knowledge about global issues, and students' attitudes showed some positive changes. The preliminary findings presented in this paper provide some insights on how to improve the current assessment design and also call for further efforts to evaluate achievement of those course objectives that embrace higher level skills. Should further study confirm that, as designed, the course fails to meet some of its learning objectives, pedagogical decisions will be necessary to improve the course to better meet the learning objectives.

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Appendix A

Global Challenges Survey

Please respond frankly to the items below by circling one number after each statement. Circling a "1" indicates that you strongly disagree with the item while "5" indicates that you strongly agree. Please circle the number that most closely reflects your opinion.

Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
(1)	(2)	(3)	(4)	(5)

1. I know quite a lot about the most important trends facing the world today. **(Attitude 2)[Q1 in 2008 survey]**

    1   2   3   4   5

2. I am committed to civic involvement (e.g., voting, public policy issues, contacting local officials) **(Attitude 4)[Q4 in 2008 survey]**

    1   2   3   4   5

3. I am very knowledgeable about how to get involved in civic life. **(Attitude 4)[Q5 in 2008 survey]**

    1   2   3   4   5

4. I believe my actions as an individual citizen can make a difference in shaping the future of my local community. **(Attitude 4) [Q6 in 2008 survey]**

    1   2   3   4   5

5. I believe my action as an individual citizen can have an effect on the global community.

    1   2   3   4   5 **(Attitude 4)[Q6 in 2008 survey]**

6. I am curious about what happens in other parts of the world. **(Attitude 3)[Q9 in 2008 survey]**

    1   2   3   4   5

7. I feel a connection to people in different parts of the world. **(Attitude 1)[Q10 in 2008 survey]**

    1   2   3   4   5

8. Events happening in other parts of the world affect my daily life. **(Attitude 1) [Q11 in 2008 survey]**

    1   2   3   4   5

9. I read information about other parts of the world regularly. **(Attitude 1 and 3) [Q12 in 2008 survey]**

    1   2   3   4   5

10. It is important to know about key global challenges. (Attitude 2—and 1, 3)

    1   2   3   4   5

The following are topics that are changing rapidly and are thought to be important global challenges today and in the future. Please rate your "knowledge" of the significant impact of these topics **(knowledge and Skills and Attitude 2)**

Very weak   Weak   Medium   Strong   Very strong
(1)   (2)   (3)   (4)   (5)

1. Changes in Population Demographics (e.g., Growth, Aging, Immigration)

    1   2   3   4   5

2. Water Resources

    1   2   3   4   5

3. Climate Change

1   2   3   4   5

4. Information Technology (e.g., Social Media, Global Access, Storage)

1   2   3   4   5

5. Computers

1   2   3   4   5

6. Biotechnology (e.g., Genetic engineering, Genetically modified food, Medicine)

1   2   3   4   5

7. Global Economies (e.g., Trade between nations, Currencies, Debt)

1   2   3   4   5

8. Warfare (e.g., Modern weapons, Conflicts in the world)

1   2   3   4   5

9. Conflict Resolutions (Strategies and organization to promote peace)

1   2   3   4   5

10. International Organizations (e.g., The World Bank, United Nations, Word Health Organization)

1   2   3   4   5

The following are content questions that test your level of basic knowledge about global issues. Please select the best response for each of the following questions. **(knowledge and skills)**

1. What is the world's total population?
    a. 10 billion
    b. 4 billion
    c. 7 billion
    d. 23 billion
2. Which of the following statements is true for most of the world?
    a. The demand for water, food, and energy is greater than the supply.
    b. The supply of water, food, and energy is greater than the demand.
    c. The supply and demand of water, food, and energy are in rough equilibrium.
    d. Population trends will lessen the demand for water, food and energy over the next 20-30 years.
3. The transhumanism refers to:
    a. The use of artificial intelligence to replace human labor
    b. The use of nanotechnology in the biomedical field
    c. The theory that science and technology can help humans evolve beyond current physical and mental limitations
    d. The idea that computing technology doubles in complexity every two years
4. What is meant by the term "Big Data"?
    a. A large public server used for sharing data
    b. The massive compilation of data
    c. Technology trends that allow new approaches to understanding the world and making decisions
    d. Fast and powerful number-crunching computers
5. The fact that many crops, goods, and services that were once unique to one country or region and are now present across much of the world is due to what global phenomenon?
    a. Economic integration
    b. Economic inequality
    c. Economic dispersion
    d. Economic involvement
6. BRICS is an acronym associated with:
    a. Price standards for global oil production
    b. Emerging players in the global economy
    c. Common standards in social media and networking

      d. Theories of conflict resolution

7. Which of the following is <u>not</u> considered to be one of the three basic causes of global conflict in the 21st century?
    a. Territory
    b. Ambition
    c. Resources
    d. Culture (which includes politics, ideology and religion)
8. Weapons of mass destruction (WMDs) are nuclear, _____ and biological weapons.
    a. Chemical
    b. Nanotech
    c. Conventional
    d. Cyber
9. Which of the following is not an example of a state actor?
    a. The United Kingdom
    b. The United Nations
    c. The United States
    d. The United Arab Emirates

Demographic questions:

1. Gender (please check one)

____ Male

____ Female

2. Year in School (please check one)

____ First Year

____ Sophomore

____ Junior

____ Senior

3. Age

____ 23 or younger

____ 24 +or older

4. Nationality

____ United States

____ Other (Please list nationality, _____)

5. Institution [drop down menu of campuses offering it this semester]

6. Did you take the course fully on-line (ie: there was no face-to-face interaction with a faculty member)?

____ Yes

____ No

7. Which category best describes your major or primary area of study?

____ Humanities/Fine Arts

____ Social Science

____ Natural Science

____ Health Science

____ Business

____ Education

____ Other

Author Biographies

Shala Mills, J.D. is Chair and Professor of Political Science at Fort Hays State University (Kansas). Mills is the recipient of numerous teaching and advising awards. She teaches courses in the areas of law and the courts, current political issues, sustainability, and food and politics. Her most recent publications have been in the areas of academic assessment and leadership and global challenges. She serves as one of the Global Engagement Scholars and is the National Coordinator for the Global Challenges Project.

Jian Sun, Ph.D. is an Associate Professor of Political Science at Fort Hays State University (Kansas). He teaches research methods and public administration courses. He has published in the areas of housing studies, public policies and urban development. He is also a research scientist at the Docking Institute of Public Affairs and has been involved in feasibility studies, program evaluation, public opinion surveys, and housing studies.